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CHILDREN'S CONCEPT OF MAIN IDEA AND THEIR STRATEGIES TO FIND MAIN IDEA IN EXPOSITORY MATERIAL

by

© PATRICIA MARY CAMPBELL

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled Children's Concept of Main Idea and Their Strategies to Find Main Idea in Expository Material submitted by Patricia Mary Campbell in partial fulfilment of the requirements for the degree of Master of Education.

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Date April 15 1985

Dedicated to

My Mother and Father
who never cease to amaze me
with their constant support
and love.

ABSTRACT

The purpose of this study was to investigate the concept of the term main idea of a representative group of high proficiency readers as to how that concept could change from grade 2 to 4 to 6 and how these readers found main idea. The research was conducted in April of the school year in order to investigate further the findings of McPike (1983) by using subjects from three grade levels (grades 2, 4 and 6) rather than only her grade 6 level.

The student sample consisted of 12 high proficiency readers in each of grades 2, 4 and 6 for a total of 36 students. The students were chosen from five schools in the Edmonton Separate School System on the basis of teachers' judgement and on their performance on standardized reading and intelligence tests. The research instrument consisted of a set of three expository passages, with one passage being used at each grade level. Before silently reading the passages, the subjects were queried in regard to their understanding of main idea and the strategies they used to find main idea. An in-depth interview and task performances followed the reading of the passage in order to determine what text information the readers considered important and what comprised the contextual frame used to find main idea.

The in-depth interviews were transcribed and the protocols were categorized into three major areas:

understanding of main idea, strategies used to find main idea and readers' reasons for underlining important information and circling key words. The task performances were analyzed in relation to the grammatical function of the key words circled and information underlined. The findings were then compared across grade levels to investigate the students' concept of main idea.

The findings from the in-depth interviews revealed that all students were familiar with the concept of main idea, but this concept varied in the completeness and correctness of its components. In addition, the concept of main idea differed among individuals, even at the same grade level.

An analysis of the students' strategy use and task performances revealed that the grade 4 and 6 students may have been higher on the hierarchical ladder of concept development than the grade 2 students. The entire grade 6 sample was able to verbalize their strategy use whereas a similar percentage of grade 2 and 4 students (20% and 17% respectively) were unable to verbalize their strategy use before reading the passage. After reading the passage, 50% of the grade 2 students were unable to verbalize their strategy use. The entire grade 6 sample had formed an internal organization of the concept of main idea whereas some of the grade 2 and 4 students (40% and 6% respectively) relied on an external source to structure their thoughts on main idea.

A primary reason for interacting with the text among all three grade levels given was that the text provided descriptive detail which led to the topic of the passage and in turn led to the main idea. The students also used the text information as a base for making inferences about the qualities and actions of the major characters. A larger percentage of grade 4 and 6 students (91% and 100% respectively) as compared to 41% of the grade 2 students used key words in a manner which was more relevant to finding main idea. That is, they had developed a concept of main idea and used key words to provide a framework as summary of the passage.

Implications for teaching the concept of main idea and suggestions for further research into children's concept of main idea were suggested.

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Chapter 1

INTRODUCTION

Introduction to the Problem

Since the beginning of time, the human race has realized the need for communication as a tool for survival. The evolution of communication has progressed along a continuum which began with communication using non-verbal behaviour, led to the development and use of oral language and finally to communication with written language between reader and writer. In the reading process, comprehension emerges as one of the key components because understanding is an essential part of communication. Similarly, in comprehension, the ability of the reader to find the main idea has been considered a crucial measure of his/her comprehension of the passage. "As long ago as 1916 John Dewey urged an emphasis upon the main idea of a discipline to help students make greater sense out of their experience" (Fraenkel, 1973). This study focused on two aspects of main idea of an expository passage.

Specifically, the research examined whether a child's concept of main idea underwent changes in elementary school. In-depth interviews and performance tasks investigated how children in grades 2, 4 and 6 attempted to find the main idea and what their concept of main idea was.

Students from grade one to university are constantly asked the question, "What is the main idea of the passage?" Usually they respond by either recognizing the main idea in a multiple choice situation or by stating the main idea in their own words. The ability to respond correctly depends on their concept of what a main idea is and of how to go about finding it. This exercise in comprehension usually ends when the correct answer is chosen as the teacher assumes the student understands what a main idea is if that student can identify it. The question, "How did you find the main idea?" is seldom posed.

These two questions need to be posed in order to gain an understanding of the child's concept of main idea. Baumann (1982) suggested that a better definition of what is meant by main idea is needed. Educators often tend to evaluate what the child has read rather than implementing probing techniques to gain an understanding of what a child can do or why he does it. This is apparent in multiple choice questions, which may reflect a guessing game in which a child has a one in four chance of successfully selecting the main idea. Educators need to become more cognizant of the child's concept of main idea and the strategies he uses to find it. By becoming more cognizant, educators may be able to assist children in developing a clear and adequate concept of main idea and in utilizing their concept in order to find the main idea of a passage. Children need this assistance since finding the main idea becomes more complex as they advance through the school system and are faced with increasingly difficult reading materials.

McPike (1983) explored the conceptual understanding of the term main idea with high proficiency readers in grade 6 by using a combination of in-depth interviews and performance tasks. Her study revealed that the background information that a reader brought to the page was a crucial factor in building a contextual framework to find the main idea. Since the background knowledge which a reader brings to the page is highly individualistic, every child will build a unique contextual frame. Due to the individualistic nature of each child's contextual frame, it is not feasible to have a set 'rule' for finding the main idea. Therefore, children need to have an adequate concept of main idea and they need to know how to use the concept to find main idea as they read.

This study was an extension of one aspect of McPike's in that it used subjects from three grade levels (grades 2, 4 and 6) rather than only her grade 6 level. This writer investigated whether children's concept of main idea changed from grade 2 to grade 4 to grade 6 and how they utilized their concept to find main idea.

Vital to this study was an understanding of how children's concepts develop. Research in conceptual development has shown that concepts do follow a pattern of development. Therefore, it seemed reasonable to assume that children who are developing a concept of main idea would interact with the text in different ways and within different grade levels. By using a sample of children in grades 2, 4 and 6, this writer hoped to see what their concept of main idea was at each of the three grade levels and also, how they utilized their concept in order to find main ideas when they read. By knowing more about what children think a main idea is and about how children at different grade levels find main ideas, teachers should be able to use the children's knowledge as a baseline to begin teaching from. Therefore, there was a need to be asking "What do you think main idea is?" and "How do you find the main idea?"

Statement of the Problem

The ability of a reader to find the main idea of an expository passage is one aspect of comprehension. Few studies have examined whether a child's concept of main idea undergoes changes in elementary school, and how a child utilizes his concept of main idea in order to find main ideas.

The purpose of this research was to use expository discourse to investigate the concept of main idea of a representative group of high proficiency readers as to how that concept could change from grades 2 to 4 to 6 and how these readers found the main idea. The children's concept of the term main idea was investigated then among three grade levels (2, 4 and 6) rather than within grade levels. This research was an extension of one aspect of McPike's who compared the conceptual understanding of the term main idea within one grade level, grade 6. Specifically then, what the children's understanding of the term main idea was would become apparent by their explanations of their understanding of the term main idea as evidenced in their answers to questions in an in-depth interview.

In addition, how these children found main idea became apparent by their:

a. understanding of main idea by verbalizing it orally;

b. identifying relevant details by both underlining important ideas and circling key words;

c. verbalizing of the strategies they used to find main idea.

Definition of Terms

Very Proficient Reader

A very proficient reader was a subject who scored at or above the 75th percentile on the reading subtest of the Canadian Test of Basic Skills or on the Gates-MacGinitie

Reading Test and who was selected by his teacher as a "very proficient reader."

Main Idea

Main idea is a single statement created or found by the reader which gives the essence or message of the work in the form of a generalization. There is an interaction between reader and text in the formulation of the main idea (McPike, 1983, p. 230).

The Dictionary of Reading Terms (1981) provided three definitions of main idea:

1. the central thought, meaning or gist of the passage;

2. the chief topic of the passage expressed or implied in a word or a phrase;

3. a statement in sentence form which gives the implied major topic of a passage and the specific way in which the passage is limited in context or reference.

These definitions focused on the text rather than the significance of the interaction between reader and writer (text) in the formation of the main idea. Also, these definitions were followed by the statement that there is little agreement on what main idea is. Therefore, this writer adopted McPike's (1983) conceptual definition as it represents a more global understanding.

Expository Passage

An expository passage sets forth, explains and interprets. It is clear in conception, well organized and understandable. On the other hand, a narrative passage represents a series of events, related through a causal or thematic chain, that occurs over time.

Other terms will be introduced as needed.

Research Questions

Research Question 1

1.1 What is the students' understanding of the term main idea?

1.11 Is the students' understanding of the term main idea grade related? Does the students' understanding reflect differences or similarities in grades 2, 4 and 6? (This was not, however, a developmental study but was rather a study which used a comparable group of children in grades 2, 4 and 6 to compare similarities and differences in reading performance.)

Research Question 2

How does the reader process information in an expository passage in order to determine main idea?

2.1 What strategies do very proficient readers verbalize before and after they attempt to find a main idea?

2.11 Are there differences in the verbalizations of children at grades 2, 4 and 6 when they attempt to find a main idea?

2.2 What context is relevant to very proficient readers as evidenced by:

   a. the underlining of main ideas which were important to them as they were reading the passage to find main idea?

   b. the circling of key words which helped them to determine the main idea?

2.21 What are the readers' reasons for explaining:

   a. why they underlined the important information?

   b. why they circled the key words?

Organization of the Study

The study of children's concept of main idea and how they attempted to find main idea in expository material was conducted in a series of steps. These were:

1. The selection of three expository passages, with one passage being used at each grade level, either grade 2, 4 or 6.

2. The construction of interview questions which were adopted from McPike (1983) and were to be posed to children of three grade levels.

3. The selection of the sample which consisted of 14

students at each of grades 2, 4 and 6 for a total of 42 students in the total sample.

4. The conduct of one pilot study which involved two children at each of grades 2, 4 and 6 in order to investigate the suitability of the interview questions, the expository passages and the performance tasks.

5. The development of a final revision of the grade 2 passage and the interview questions for the three grades.

6. The conduct of 36 in-depth interviews, 12 at each of grades 2, 4 and 6 to ascertain how the children processed the information in the expository passages and to investigate their understanding of main idea. The in-depth interviews were also undertaken to find out what information from the text was considered important by the reader, and what comprised the contextual frame the reader used to formulate main idea.

7. The transcription of the protocols.

8. The analysis and interpretation of the data. The students' protocols were categorized in three major areas: understanding of main idea, strategies used to find main idea, and readers' reasons for underlining important information and circling key words. Also, the researcher used three systems to code the use of context with regard to what information the students underlined and circled.

Assumptions

The basic assumption underlying this study was that students had a concept of main idea and that they employed their conceptual understanding when they attempted to find the main idea. The second assumption was that the students' protocols and task performances reflected their concept of main idea and the processes they used to find main idea. Third, it was assumed that the researcher was competent enough to interject probing when the children's responses required clarification. Finally, it was assumed that the verbal IQ scores and reading scores taken from the cumulative records were accurate indicators of performance in these areas for the members of the sample.

Limitations of the Study

The following limitations of the study were recognized:

1. Only high proficiency readers in each of the three grade levels were chosen. They were not representative of all children at the grade 2, 4 and 6 population in Edmonton schools. Therefore, results can only be generalized to comparable groups of high proficiency readers at those same grade levels.

2. The small sample constrained the generalizability of results from grade to grade.

3. Only expository passages were used. The process

used to find main idea cannot be applied to other types of passages, such as narrative.

4. The research techniques used to probe the subjects' strategies and use of context did not provide direct access to the actual processing undertaken by very proficient readers.

Significance of the Study

Many of the previous studies on main idea have concentrated on the product of comprehension and main idea was studied in terms of the students' ability to find main idea. With the exception of the research of McPike, no research has been identified on how the child attempts to find main idea and what his concept of the term main idea is. The results of this study could be practically applied in classroom instruction to aid children in their attempts to find main idea for expository passages. Because the majority of content textbooks, such as social studies, contain expository passages, finding the main idea of expository passages is a fundamental and necessary skill.

Furthermore, although McPike investigated whether grade 6 students possessed a metacognitive awareness of how they found main idea, this had not been ascertained for grades 2 and 4. Also, little was known in regards to second and fourth grade students' concept of what information in the text was important and why. Hopefully, the results of this study can be practically applied to aiding children in their attempts to finding main idea.

Chapter Summary

This chapter introduced and stated the problem of the research. Next, the three terms, very proficient reader, main idea and expository passage were defined. Then, the two major research questions were stated followed by the organization of the study. Finally, the assumptions, limitations and significance of the study were outlined.

Chapter 2

REVIEW OF RELATED LITERATURE

The review of the research is organized into four sections. The first section deals with concepts, their characteristics and their development. The second part focuses on cognitive development, since reading demands certain cognitive levels of development. The third section discusses metacognition, since the children were asked to explain their strategies for finding main idea. The final section presents studies which investigated children's abilities to find main idea.

Concepts: Their Characteristics and Development

Characteristics of Concepts

Since this study is investigating children's concept of main idea, it is necessary to look at the characteristics of a concept. From the research literature, five major characteristics of concepts emerge.

1. Concepts are mediating processes rather than direct sensory data (Bruner, 1956; Stauffer, 1969; Serra, 1953; Vinacke, 1974; Russell, 1956; Bolton, 1977).

2. Concepts have denotative and connotative components (Hayakawa, 1964; Vinacke, 1974; Carroll, 1964;

Rommetveit, 1979).

3. Concepts vary in their consistency or the completeness and correctness of their components (Vinacke, 1974; Ehrenberg, 1981).

4. Concepts are hierarchical (Ehrenberg, 1981; Vinacke, 1974; Serra, 1953; Vygotsky, 1962; Ausubel, 1963).

5. The verbal label or concept label is not the concept but stands for the internal organization which is the concept (Ehrenberg, 1981; Russell, 1976; Jackson, 1970; Jarolimek, 1966).

For the purpose of this study all five general characteristics seem to be of special importance. The first is that concepts are mediating processes. Finding the main idea necessitates going beyond the printed page and relying on previous experience in order to organize, elaborate and integrate the information of the text. Hence, a child needs to have a concept of main idea and needs to make use of that concept. The second characteristic, denotative and connotative components of concepts, means that the concept of main idea may differ between individuals, even at the same grade level, since concepts are subjective.

The third characteristic, the completeness and correctness of concepts' components, means that the concept of main idea will vary within and between children at the three grade levels. This variance is a reflection of their background knowledge and the teachers' instruction. The fourth characteristic, the hierarchical nature of concepts, suggests that children in grade 2 may have several subconcepts of main idea developing whereas a child in grade 6 may have a single, integrated concept. For example, a grade 2 student may only be able to find the main idea in a sentence whereas a grade 6 child may be able to find the main idea in a paragraph. The fifth characteristic is that the concept label is not the concept. Children may be familiar with the term main idea, but this does not guarantee that they have formed a concept of main idea.

This study then was examining children's concepts of main idea, and how the concept of main idea differs from grades 2 to 4 to 6. Consequently it was important to examine the characteristics of a concept.

Concept Development

> Concept development is a first-order rating in the teaching of reading as a thinking process. This is so because concepts are cognitive structures acquired through a complex and genuine act of thought, and they cannot be absorbed through ready made memory or drill. (Stauffer, 1969, p. 375)

Stauffer makes the vital point that teaching should be adjusted to the conceptual developmental level of the child and in this study, special attention will be given to the child's concept of main idea. Teachers need to be aware of a child's concept of main idea so that their instruction will facilitate the child's level of conceptual development. Numerous researchers have studied the development of children's concepts and have identified two important operations to be mastered in the development of concepts as the processes of abstracting and generalizing (Herber, 1978; Vinacke, 1974; Vygotsky, 1962; Jackson, 1970; Russell, 1956; Carroll, 1964; Dupuis and Snyder, 1983).

> The process of abstracting signifies the linking of one sensory experience to another in which some details are left out and others become dominant—in this sense the concept is a symbolic response for those dominant details. (Vinacke, 1974, p. 152)

Lunzer (1979) agrees that abstraction is central to the evolution of conceptual structures and in this study the formation of the concept of main idea depends on abstracting and retaining the critical features that define main idea. For example, a child needs to learn that the main idea gives the essence or the message of the passage. The child's concept of main idea should become more clear and concise as he attempts to find the main idea in various passages which may be short or long and expository or narrative.

In reading, the process of generalizing occurs as a reader "gathers specific information which he attempts to organize in some fashion so as to identify relationships. A relationship that he identifies and subsequently uses, is a generalization" (Herber, 1978, p. 19). Children need to develop the generalization that passages contain dominant details, which must be synthesized in order to find the main idea. Generalizations lead to the formulation of a superordinate concept which includes the concept as a particular case. In light of this statement, comprehension of a passage could be the superordinate concept, and main idea of the passage could be one concept within the superordinate concept. Therefore, there is a hierarchical pattern of concepts.

Welch and Long (1940) and Bolton (1977) stressed the process of classification, which is a particular level of abstraction, as they consider it to be an important operation to be mastered in the development of concepts. According to Welch and Long, concepts organize themselves into hierarchies of relationships and the child not only learns concepts applying to one class of objects, but also learns that one class may include other classes. This could mean, for example, that children need to understand the concept of main idea in expository passages as well as narrative passages. Children also need to realize that finding the main idea is one crucial skill for total understanding of the passage; that is, main idea is one concept within the superordinate concept of comprehension.

This study examined the concept development of main idea in three grades: 2, 4 and 6. It was necessary to research the development of concepts so that this information could be applied to this writer's research. For instance, as a child enters the higher grades in elementary school (grades 4 and 6), he/she tends to employ the processes of abstraction and generalization to a greater extent. However, the child in grade 2 has usually not mastered these processes and tends to have difficulty with the concept of main idea. To know more precisely the nature of children's difficulties with this concept was the focus of this study.

Cognitive Development

Reading is an active process, "but the activity required in reading demands certain cognitive kinds of development" (Craig, 1983). Teachers need to be aware of, accept and work from students' point of view, and to be empathetic to the students' developmental process. Since each child develops uniquely, teachers should not attempt to impose their concept of main idea on the child.

Smith, Goodman and Meredith (1970) use both Piaget's and Vygotsky's work to describe five stages in the development of thinking. Although the stages of Piaget and Vygotsky are not identical, they are close enough for consideration. Stages one to three will be collapsed and stages four and five, which are relevant to this study, will be expanded. Stage one occurs from birth to around two years and imitation of adults and symbolic play signifies the end of this period. Stage two, occurring from ages two to four, is the beginning of real language development because words begin to stand for images. The child enters stage three at four to seven years of age. In this stage, the child bases relationships in classifying on strictly perceived attributes of stimuli.

When students are in grades 2 and 4, they are in stage four which Piaget labels Concrete Operations and Vygotsky labels Pseudo Concepts or Potential Concepts. In this stage, the child can think propositionally, form hypotheses, and look at phenomena from at least two points of view. He can keep two variables in mind as he considers classes or categories. If the child is trying to find the main idea of a passage, he can conserve one relevant detail while he is considering another related relevant detail. However, these processes must be in terms of the concrete, as the child is not ready for verbal abstraction. This stage will lead to conceptualizing in abstract principles and generalizations only if children have sufficient experience with concrete operational thinking. If they aren't provided with this experience, they will only be able to verbalize their generalized concepts. Main idea is seen as a concept which can only be generalized if the child has sufficient concrete experiences. Hence, a child needs to find the main idea in passages which are familiar to him in terms of his background concrete experience.

Grade 6 students should be entering stage five which

Piaget labels as Propositional or Formal Logic and Vygotsky labels Genuine Concepts. The child can think beyond present tasks and for theories. He can deal with propositions, probabilities, correlations, permutations and aggregations. He can hold several factors in his mind while considering others. He can be truly experimental and the deductive process as well as the inductive is open to him. For this study, this could mean that the grade 6 child has a single, integrated concept of main idea and that he knows how to apply this concept in order to find the main idea. A single integrated concept of main idea means that the child is cognizant of all the defining features of main idea and that the child is aware that main idea is one aspect of comprehension.

Ausubel (1963) suggests a modified version of Piaget's theory stressing the role of language at the different stages. He suggests that cognitive development may be divided into three distinct stages. The three stages are the pre-operational stage, the concrete operational stage, and the abstract operational stage. The concrete operational stage is related to this study as it occurs during elementary school. In this stage, behaviour or learning comes under verbal or symbolic control. The child is able to manipulate relations between ideas internally, but the ideas are still dependent upon recent concrete, empirical evidence. The child who is trying to find the main idea in this stage relies on his concrete experiences. The only way in which expository passages can be considered concrete is if they contain information which is within the experience of the child. The child can then use his/her background knowledge to interact with the text, and manipulate relations between ideas internally.

Piaget, Vygotsky and Ausubel have two schools of thought on the development of concepts. One school of thought held by Vygotsky and Ausubel views the individual as more of a passive learner than active, while the other held by Piaget and Bruner, pictures the person as more of an active participant in the process of forming concepts (Bourne, 1966). Ausubel and Vygotsky advocate that material can be organized more profitably by the teacher and presented to the student, in which case the student is seen as a passive recipient of information from his environment. Piaget and Bruner (1961) suggest that learners should organize material for themselves as a result of having been provided with opportunities to discover relationships inherent in the material (Lefrancois, 1982).

The stance adopted by this researcher is similar to that of Piaget and Bruner who view the child as an active participant in the process of forming concepts. Therefore, for the child to develop a concept of main idea, he must entertain some hypothesis about the concept of main idea which can be developed by opportunities provided by the teacher to enable him to discover the main idea in passages. In this way he is an active participant in his/her process of forming a concept of main idea.

Since thinking is a necessary prerequisite to reading, it was important for this research to investigate the relationship between cognitive development and reading. The research seems to indicate that children in higher grade levels (4 and 6) possess the cognitive processes to find main idea whereas a student in grade 2 does not.

Metacognition

Recently, considerable research has been completed in the area of metacognition (Moore and Kirby, 1981; Myers and Paris, 1978; Young and Schumacher, 1983; Brown and Smiley, 1977). According to Flavell (1976, p. 232), metacognition

> refers to one's knowledge concerning one's own cognitive processes and products or anything related to them, e.g., the learning-relevant properties of information or data. For example, I am engaging in metacognition (metamemory, metalearning, metaattention, metalanguage, or whatever) if I notice that I am having more trouble learning A than B; if it strikes me that I should double-check C before accepting it as a fact; if it occurs to me that I had better scrutinize each and every alternative in my multiple-choice type task situation before deciding which is the best one; if I sense that I had better made a note of D because I may forget it. . . . Metacognition refers, among other things, to the active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects or data on which they bear, usually in the service of some concrete goal or objective.

Metacognition played a part in this study as the students were asked questions which required them to explain how they know what they know; e.g., Can you tell me how you find the most important idea as the main idea of a story? In order to answer this question, the student had to verbalize what kind of strategies to use in order to find the main idea.

Several studies have investigated children's metacognitive awareness of reading and have employed interviews as their basic research technique (Johns and Ellis, 1976; Canney and Winograd, 1979; Johns, 1979). Their findings suggested that younger children seemed unaware of the nature of the reading act.

Rather than employing open-ended types of questions, Myers and Paris (1978) asked children in grades 2 and 6 questions about ability to read (e.g., "What do you do if you don't understand a word that you read?", p. 687). Consistent with previous findings, Myers and Paris found that sixth grade students showed more knowledge of reading as a cognitive process and were more aware of the parameters of reading.

Moore and Kirby (1981), in an attempt to replicate and extend the Myers and Paris study, investigated the relationship between performance and metacognitive knowledge. The sample consisted of high and low ability readers in second and sixth grade. The high-ability grade 6 students were able to verbalize specific processes they used when reading text.

One common thread in both studies (Myers and Paris, 1978; Moore and Kirby, 1981) was the second grade students' response which was "I don't know." When questioned about knowing the purposes of a reading task, this response accounted for over 47% of their verbalizations. Considering these findings, this researcher was alerted that the grade 2 children in this study may have difficulty responding to the question, "Can you tell me how you go about finding the main idea or the most important idea?"

Studies Investigating Children's Abilities to Find Main Idea

Recent research has investigated children's ability to comprehend main ideas, theme or gist of prose passages. "A complete review of the literature reveals that the picture of children's main idea comprehension is not clear and straight-forward" (Baumann, 1982, p. 174). One body of research (Christie and Schumacher, 1975; Brown and Smiley, 1977; Meyer, 1977; Danner, 1976; Waters, 1978; Smiley et al., 1976) produced results which suggested that young readers are reasonably skillful at comprehending main ideas.

Christie and Schumacher and Brown and Smiley investigated whether there were developmental trends in children's conscious awareness of relative importance of information within a passage. Christie and Schumacher used kindergarten, second and fifth graders to investigate whether there were age-related differences in the recall of ideas which are relevant or irrelevant to the main theme of a passage. Along with using random sampling, Christie and Schumacher considered sex and socio-economic level, but they neglected to consider the subjects' level of reading proficiency. Every grade level was verbally presented with identical stimulus material. The wide range of age, cognitive and verbal ability should have warranted three sets of stimulus materials. Another apparent weakness was that Christie and Schumacher constructed their stimulus material. Consequently, this produced a passage with two very distinct classes of units (relevant versus irrelevant). The irrelevant ideas were clearly unrelated to the theme and this may have produced an easy or invalid test of the dominance of relevant ideas in the recall. Also, the 'rigging' of the passage created a story with an unnatural flow. In addition, the relevant units consisted of 73% actions and only 27% descriptions whereas the proportion for the irrelevant ideas was reversed (Brown and Smiley, 1977). This could have had an effect on the recall. Christie and Schumacher concluded that all age-groups recalled more information relevant to the main theme than irrelevant information.

Rather than creating a story which contained relevant versus irrelevant information, Brown and Smiley used an approach adopted from Johnson (1970) in which college students were asked to classify the information within a passage as to its importance level. This system involved segmenting the passages into "pausal units" and then rating the importance of each unit to the theme of the story according to a four-point scale. Brown and Smiley never described how their sample of grades 3, 5 and 7 students and college undergraduates was chosen. The stimulus material consisted of passages with a readability of 5.2 and 5.4 for all grade levels. This level could have biased the results as it is too high for grade three students and too low for college students. These students were asked to listen to the stories and then produce an oral or written recall. These instructions were not appropriate as the students weren't asked to listen for and recall relevant information and this was what the researchers were measuring. Their instructions were contrary to theories of learning which state that a child should be given or should know the purpose of his/her task. Another shortcoming involved the rating task which was too difficult for the grade 3 students. Although they found a differential ability across grades to explicitly rate the units, this may well be due to the memory demands of the task. The procedure and comprehension difficulties may have hindered the third graders from adequately assessing the importance of content. This, in turn, would conceal whether they have an awareness of text structure. Brown and Smiley's study suggested a developmental trend which progressively improved over the age range in their sensitivity to degree of structural importance. However, it may very well be that what is reflected is a developmental change in perspective as to what is important. For instance, younger children may find actions more important than descriptions. Also, the assumption underlying this study was that knowledge of importance of ideas was related to an awareness of structure. However, assessing knowledge of importance does not necessarily reveal whether children are aware of structure.

This researcher attempted to avoid the shortcomings of the previous two studies (Christie and Schumacher, Brown and Smiley) and was aware that the students' concept of main idea may reflect a developmental change in perspective as to what is important. Also, rather than constructing the stimulus material, the passages for this study were abstracted from basal readers. Finally, the students in this study were cognizant of the purpose of their tasks. For instance, before they began to read the passage, they were told that they would be expected to state the main idea.

In three studies (Danner, 1976; Waters, 1978; Meyer, 1977) the subjects listened to the passages. This is not very ecologically valid since it is obviously not how most students interact with text.

Meyer (1977) used his prose analysis system (1975) to analyze a 641 word expository passage about parakeets. This analysis consists of a hierarchy of ideas in which some ideas are "high" in the passage hierarchy (main ideas) and others are "low" (details). Meyer used sixth grade students of high, middle and low ability for his sample. The passage was constructed by Meyer and the only gauge for judging the difficulty level, content and interest level was the teacher's subjective opinion. Rather than using recalls, Meyer constructed 30 questions which tapped the reader's knowledge of main ideas and details. The results revealed that for all three ability groups, students correctly answered a significantly greater number of questions on main ideas than questions on details. Meyer's study was similar to this piece of research in that both studies used expository passages and investigated sixth grade students' knowledge of main idea.

Danner (1976) examined second, fourth, and sixth graders' comprehension of short expository passages, each of which contained three main topics (main ideas). The passages, which were constructed by Danner, had an unnatural flow, along with a high density of ideas. The main ideas were deliberately introduced into each paragraph and were noticeably relevant. Also, each paragraph contained three main ideas, with each main idea having four supporting details. If one considers the developmental level of the grade 2 students, the task of isolating or synthesizing three main ideas seems too complex. According to Piaget, a child in the Concrete Operations stage can keep two variables in mind as he considers classes or categories. Therefore, if a grade 2 student is attempting to find the main idea of a passage, he can only conserve one relevant detail while he is considering another relevant detail. The passage had a readability level of 2.0 which seems too low for the sample he was using (grades 4 and 6).

Danner employed a variety of tasks after the children had listened to the passage. In one task, students were asked what story was the most difficult to remember and why. It is questionable as to whether grade 2 students have the metacognitive knowledge which was required for this task. Another task used questions which were very leading. For instance, one question was "Is everything in order in one story and mixed up in another?" The students were also required to group together the sentences that were related to a single main idea. Although second graders had difficulty with this task, 67% of the fourth graders and 83% of the sixth graders perfectly grouped all sentences. Then, Danner correctly grouped the sentences according to the main topics and asked the question, "What one thing do these four sentences tell you about?" All of the students in each of grades 2, 4 and 6 correctly identified at least two-thirds of the main ideas and 79% of the students correctly identified all main ideas.

The main similarity between Danner's study and this study was that both investigated whether students in grades 2, 4 and 6 could identify the main idea in an expository passage.

Waters (1978) had groups of third grade, sixth grade and college students generate passages from lists of prompt words. Kintsch's (1974) prose analysis system was used to analyze these passages. Similar to Meyer's (1975) procedure, Kintsch's system results in a hierarchy of ideas; that is, some ideas are superordinate and others are subordinate. Different groups of third and sixth graders and college students listened to the passages and later produced an oral free recall. The results indicated that the superordinate ideas or main ideas were recalled with much greater frequency than were the subordinate or detailed ideas.

Water's study may be compared to this study as both studies used three different grade levels to investigate their understanding of superordinate and subordinate ideas.

Smiley et al. (1976) examined the recall of thematically relevant material as a function of written versus oral presentation. The sample consisted of good and poor readers from seventh grade classes. The researchers used two Japanese folk tales with a grade 5 readability level. Their choice of grade level seemed appropriate since they were comparing reading and listening comprehension.

Research has shown that listening and reading comprehension become comparable in grade 7 (Sticht et al., 1974).

Along with listening to the passage, Smiley et al.'s subjects also read the passage. In order to control for timing of the presentations, the reading passage was presented at the same rate as it would take to listen to the material. Therefore, the students were presented with six lines at a time on an overhead screen. This is not a natural reading situation. If the researcher were really concerned about timing, the material could have at least been presented in 'chunks' of meaningful information, rather than just six lines at a time. Another noted weakness in Smiley et al.'s study was their direction prior to the students' recall. They asked the students to recall the story and to try to remember as many details as possible. This seems to be rather misleading since they were actually investigating the incidence of main idea statements. The results indicated that poor readers suffer from a comprehension deficit when compared to average-to-good readers. That is, good and poor readers show differential sensitivity to degrees of structural importances.

Cumulatively, this first body of research leaned towards the conclusion that readers at elementary school levels are reasonably skillful at comprehending main ideas. However, these studies were fraught with experimental design problems which leads one to be sceptical about their results. For example, the readability levels of the passages revealed that the passages were not always at an appropriate reading difficulty level for students and that the passages were often constructed by the researcher which produced an unnatural flow of language and ideas.

If young readers are reasonably skillful at comprehending main ideas, why do educators still proclaim that students do not demonstrate skill at comprehending main ideas? Friedman and Rowls (1980) acknowledged that getting the main idea "tends to be one of the more difficult comprehension skills to teach" (p. 144). In 1980, the results of a statewide assessment (Texas Assessment of Basic Skills) provided further indication that children do not comprehend main ideas very well. In addition, a second body of research (Otto, Barrett and Koenke, 1968; Tierney, Bridge and Cera, 1978-1979; Taylor, 1980; Baumann, 1981; Baumann, 1983) also challenges the contention that children are inherently skillful at comprehending main ideas. The results of these experiments showed no significant differences between students' comprehension of main ideas versus details. That is, the students were no more likely to recall a main idea than a detail.

Otto, Barrett and Koenke (1968) investigated whether second and fifth grade children were able to state the main idea of a passage after reading it. The passages had a grade one readability level which was suitable for the grade 2 sample. However, the same passages were used for the grade 5 students which puts them at an advantage. The subjects were instructed to read a paragraph silently while thinking about what all the sentences say together. Hence, the subject was directed towards a synthesis of all the elements rather than selection of a single, specific thought. Results indicated that although 64% of the fifth graders were able to produce an adequate main idea statement, only 20% of the second graders were successful at this task.

Otto, Barrett and Koenke's study was related to this study in that both examined whether students in different grade levels were able to state the main idea after silently reading a passage.

Taylor (1980) investigated the relationship of reading ability and age to children's recall of expository text after reading and to children's sensitivity to text structure. Grimes (1975) and Meyer's (1975) discourse analysis system was adopted to identify superordinate (main ideas) and subordinate ideas (details) in a 225-word expository passage. The sample consisted of fourth and sixth grade students and adults. Taylor used Fry's Readability Graph to construct one passage at the fourth grade level and one at the sixth grade level. The subjects silently read the passage and then produced an oral free recall. An analysis of the free recalls indicated no significant differences between the comprehension of superordinate versus subordinate information for either the children or adult subjects.

Taylor's study resembled this writer's research in that both studies had grade 4 and 6 students read expository passages in order to determine what context was important to them.

Baumann (1981) explored the relationship between ideational prominence and children's reading comprehension of expository prose. Since the research had limited external validity, the study was conducted in a manner that enhanced the generalizability of the results. That is, "the materials, procedures and dependent measures were selected and designed to resemble as much as possible the kinds of reading texts and tasks elementary children encounter in school" (p. 50).

The subjects consisted of average to above average third and sixth grade children. In order to meet this criterion, subjects had to score at the fifth, sixth and seventh stanines on the reading subtest of the Metropolitan Achievement Test. A total of 60 third and sixth graders participated in the study.

Passages, randomly selected from pools of third and sixth grade social studies textbooks met criteria which specified the length, readability level and style of each passage. Meyer's (1975) prose analysis system was employed to analyze the passage hierarchies which consisted of high, medium and low portions. High portions consisted of the main idea, middle portions consisted of main supporting details and low text portions were comprised of the most detailed information. Reading comprehension was assessed by three dependent measures: a free recall, a cued recall and a recognition test. The third and sixth grade students silently read the passage and then responded to one of the three dependent measures. Results indicated no consistent pattern of greater comprehension of main ideas.

Baumann's study was similar to this present research in that he had students from more than one grade level (grades 3 and 6) silently read an expository passage which was selected from a school textbook in order to investigate their understanding of main idea.

In 1983, Baumann conducted another study which investigated children's ability to comprehend main ideas in content textbooks. The sample consisted of 83 third graders and 80 sixth graders. Again, passages were selected from third and sixth grade social studies textbooks. The Fry Readability Graph was used to determine readability level and reading difficulty ranged from 2.0 to 4.0 for the third grade texts and from 5.0 to 7.0 for the sixth grade passages. Rather than using Meyer's prose analysis system, Baumann used an adapted version of

Johnson's procedure which was more straightforward and simple than Meyer's. Johnson's procedure identified main idea at two levels: an overall theme for the passage and the important, explicit ideas in the text. The subjects were allowed to read the passage twice before responding to several tasks which probed their comprehension of the gist of the passage and the specific main ideas. These tasks consisted of producing a gist statement in writing, an unaided written recall, a multiple choice test to assess main idea versus detail comprehension and a gist statement recall recognition test. By increasing the number of dependent measures used to assess main idea, the ecological validity of the research was enhanced. The results indicated that there was no consistent pattern of greater comprehension of main ideas among the third and sixth grade students. In fact, in many instances, the students were able to recall or recognize the details better than the main idea.

Baumann's (1983) study resembled this writer's research in that the passages were selected from textbooks rather than constructed and the readability level of the passages was considered.

Tierney, Bridge and Certa (1978-79) used good and poor third grade readers in their sample. Although the passages used for the study came from existing curricular materials, the same passage was used for both good and poor readers. The two levels of readers should have warranted the use of two passages, with each passage being at the instructional level for the specific group of readers. Tierney, Bridge and Cera's procedure was commendable in that they controlled for short-term memory by having the subjects read an unrelated passage before they were asked to recall information from the 'test' passage. This created an interference for memory of short-term surface features and thus assessed propositional memory for the meaning of text. These researchers also used probes to elicit information after an unaided oral recall. Probes are good in that they reduce the possibility of a production or response bias by providing the reader with structure. Often, the index of comprehension is based solely on the subjects' overt responses. It is possible that something will be comprehended at the time of reading, and remembered at the time of testing, but excluded in the subjects' recall since subjects are free to decide how much and what information to include. Johnson's (1970) pausal unit technique was used to identify main ideas and details. Results revealed little or no relationship between the students' recall and the rated importance of an idea to the passage. Hence, the students were no more likely to recall a main idea than a detail.

Tierney, Bridge and Cera's study was comparable to this writer's research in that both studies used probes or prompts to help elicit information from students when examining their understanding of main idea.

Review of McPike's Study

McPike's study (1983) investigated and described grade 6 students' definition of main idea, their strategy use and selection of textual information used to find main idea. The study also investigated how form, idea structure, task and length of the passage affected the process of finding main idea along with the quality of main idea produced. The section of McPike's study which used in-depth interviews to study children's strategy use and selection of textual context used to find main idea was replicated and modified by this researcher and will be described below.

The sample for the in-depth interviews consisted of 32 proficient and very proficient grade 6 readers who scored at or above the 55th percentile in the reading subtest of the Canadian Test of Basic Skills. In addition, the students were identified by their teachers to be their best readers. The research instrument consisted of four expository and four narrative passages, with each of the 32 subjects processing two narrative and two expository passages. According to the Dale-Chall Readability Formula, the passages were established at a grade 4.5-5.0 readability level.

In-depth interviews were designed to probe the students' understanding of main idea, their strategy use and their reasons for contextual use and non-use, and the key words used by the reader to find main idea. The readers were given two task performances which required them to underline important information and to circle key words which helped them to find the main idea. McPike analyzed the protocols from the in-depth interviews by categorizing the students' answers into five major categories: the meaning of main idea, the strategies used, the reasons for contextual use and non-use, and the key words used by the reader to find main idea.

McPike's findings revealed that the reader's strategy use and the form of the passage interacted with the reader's notion of what textual information was important. The reader selected information related to character and plot when processing the narrative passages. When processing exposition, the main reason for information being important was that it established the major topic or event.

This researcher modified McPike's study in that grade 2, 4 and 6 readers were used rather than only her grade 6 level. McPike investigated the relevance of context in finding main idea by examining the amount of information considered important along the degree of variation in selecting sentences and key words. This study did not examine context in this manner. Instead, contextual use was investigated by examining the grammatical use of key words circled and information underlined. Both studies reported the readers' reasons for underlining important information and circling key words, strategy use and the readers' understanding of main idea.

Chapter Summary

The development of concepts, cognition and metacognition is directly related to children's concept of main idea. The research indicated that abstraction and generalization are two processes to be mastered in the development of concepts. Grade 2 students may have difficulty forming a concept of main idea as they have not had the experience to master these two processes in terms of forming a concept of main idea. Furthermore, according to theories of cognitive development, grade 2 and possibly grade 4 students may have difficulty synthesizing the information in a passage in order to find the main idea.

Metacognition was also a factor in this study as students were asked to explain their strategies for finding main idea. Recent research suggested that grade 6 students may have less difficulty than grade 2 students as the former possess more of an awareness of the process of reading.

The last section dealt with studies on children's ability to find main idea. The research was not conclusive as two bodies of thought emerged. One group of research leads to the conclusion that students in elementary school are reasonably skillful at comprehending main idea. However, studies in this body of research were fraught with experimental design problems, such as the passages were often constructed by the researcher and were not at an appropriate reading level. The second body of research showed no significant differences between students' comprehension of main ideas versus details. These studies were ecologically valid and were conducted in a manner that enhanced the generalizability of the results. For instance, the passages were selected from basal readers and were at an appropriate reading level.

Chapter 3

THE EXPERIMENTAL DESIGN

This chapter will describe the selection of the sample, the pilot study, the testing instruments, the research instrument and the procedure for the main study which gives details regarding the in-depth interviews, and the coding and analyses of the subjects' task performances and their protocols.

The purpose of this study was to use expository discourse to investigate two aspects of main idea. First, to investigate the concept of the term main idea of a representative group of high proficiency readers as to how that concept could change from grades 2 to 4 to 6 and secondly, how these readers found the main idea.

The Sample

The sample for the main study consisted of 12 high-proficiency readers at each of grades 2, 4 and 6 for a total of 12 students in each grade and 36 students in the total sample. These students, drawn from the population of all grades 2, 4 and 6 students in the Edmonton Separate School System, were identified by central office personnel from five schools. The students met the following criteria:

1. They were chosen from five schools in the Edmonton

Separate School System identified by central school office personnel of the school board. The readers were comparable in terms of intelligence and chronological age.

2. The grade 2 subjects were within the average to above average range of intelligence on the Primary Mental Abilities Test, i.e., 105-140. This test was administered in May, 1983. The grade 4 and 6 subjects were within the average to above average range on the Lorge-Thorndike Intelligence Test, i.e., 105-140 on the verbal section, which was administered in November, 1983. It was thought by the researcher that very proficient readers would fall within this range of intelligence (Bransford, Vye and Stein, 1984).

3. They appeared to the researcher and teachers to have no serious sight, hearing, speech or emotional problems which would affect their reading.

4. The grade 2 students were high-proficiency readers as determined by scores obtained on the Gates-MacGinitie Reading Test, Form I, administered in January, 1984. That is, they scored at or above grade 3.3 on both tests of reading comprehension and vocabulary development. The grade 4 and 6 students were high proficiency readers as determined by scores obtained on the reading subtests of the Canadian Test of Basic Skills, administered in February, 1984. That is, they scored at or above the 75th percentile on both tests of reading comprehension and vocabulary development.

5. The age ranges of the students in grades 2, 4 and 6 were comparable. Within each of grades 2, 4 and 6, there was an age range of 11 to 12 months. Between each grade, there was an age range of 23 to 25 months.

6. The students' teachers verified by observation that the students were high-proficiency readers and they commented that the students were verbal in their classroom performance.

The sample for the main study was drawn from five suburban schools out of 68 in the Edmonton Separate School System. Profiles on the total population of grade 2, 4 and 6 students in the five schools were provided by personnel at central office. The investigator used a four step process to select the sample for the main study. First, subjects were selected on the basis of their reading ability, i.e., their scores were at or above the 75th percentile. Thirty-three grade 2 students, 40 grade 4 students and 34 grade 6 students met this first criterion. Next, those who were within the average to above average range of intelligence, i.e., 105-140, were selected. Hence, the sample was narrowed down to 27 grade 2, 34 grade 4 and 27 grade 6 students. The parents of the chosen sample of 88 students were contacted for permission to allow the investigator to interview their children. Fourteen grade 2 students, 16 grade 4 students and 17 grade 6 students were given written parental permission to participate in the study. Finally, the investigator contacted the grade 2, 4 and 6 teachers to verify whether the 47 selected subjects were high proficiency readers and whether they were verbal as well. The investigator did not use 11 of the 47 subjects as the teachers verified that these 11 subjects were not very verbal. That is, they were shy and did not volunteer information.

The five schools used in both pilot and main studies were located in different parts of Edmonton. Eight students from each of Schools A, B, C and E were used in the main study, as were four students from School D. Six students from School D were also used in the pilot study.

The final sample selected for grade 2 consisted of six males and six females. Their average comprehension score was 4.6, their average IQ was 122, and their average age was 7 years, 10 months. The final sample selected for grade 4 consisted of seven males and five females. Their average percentile score for comprehension was 91 and for vocabulary development was 90. The average IQ for grade 4 was 125 and their average age was 9 years, 9 months. The final sample selected for grade 6 consisted of nine males and three females. Their average percentile comprehension score was 91 and their average percentile vocabulary development score was 87. Their average IQ was 123 and their average age was 11 years, 9 months. Table 3.1 provides a summary table of background information on grades 2, 4 and 6 students participating in the main study and the pilot study. See Appendix A for more detailed information on students' backgrounds in the main study and the pilot study.

Pilot Study

The pilot study, undertaken on April 16th and 17th, 1984 was designed to ascertain the appropriateness of the interview questions and the expository passages, and to determine whether students could perform the tasks demanded by the study and whether they were capable of explaining their reasoning.

Two students from each of grades 2, 4 and 6 were chosen from School D, a sample of six children. This sample was chosen on the basis of the criteria set out for the main study, with one exception, which was that the children were not deemed verbal by their teachers. The students in grades 4 and 6 had scored at or above the 75th percentile on the reading subtests of the Canadian Test of Basic Skills. The grade 2 students had scored at or above the 75th percentile on the Gates-MacGinitie Reading Test. The intelligence quotient of the selected students in grades 2, 4 and 6 was at or above 105. They were also deemed to be very proficient readers by their teachers.

Each student was individually interviewed in a quiet area outside of the classroom. The procedure planned for

Table 3.1

Summary of Background Information on Grade 2, 4 and 6 Students in Main and Pilot Study

	Grade	Sex	General Comprehension Score (Average)	IQ (Average)	CA (Average)
Pilot Study	2	2M	C 77% V 77%	117	7 years 11 months
Main Study	2	6M 6F	4.6	122	7 years 10 months
Pilot Study	4	2F	C 75% V 77%	127	9 years 7 months
Main Study	4	7M 5F	C 91% V 90%	125	9 years 9 months
Pilot Study	6	2F	C 95% V 85%	127	11 years 9.5 months
Main Study	6	9M 3F	C 91% V 87%	123	11 years 9 months

the main study was followed and is recorded here. Prior to reading the expository passage, he/she was asked the following two questions:

1. When your teacher asks you to find the main idea of a story or the most important idea, what does she want you to do?

2. Can you tell me how you find the most important idea or the main idea of a story?

Upon answering these two questions, the subject was asked to read the passage silently. The subjects were also told that they would be asked to give the main idea or the most important idea and to tell everything they could remember about how they chose the main idea. After reading the passage, the subjects were asked the forementioned two questions again.

The second task required the subjects to underline all the ideas that they remembered were important to them as they were reading the passage. After they had completed this second task, they were asked a series of questions adopted from McPike (1983).

1. Why was this information important?

2. How did this information help you?

3. Does this piece of information relate in any way to other information you found important?

4. Why didn't you find ____________ important?

The third task required the students to circle the key words which helped them to find the main idea. After they had completed this task they were asked two questions adopted from McPike (1983):

1. You circled ___________. Why was that a key word?

2. How did this key word help you to find the main idea?

Finally, the students were asked to explain how they found the main idea or the most important idea. The six in-depth interviews were recorded and transcribed. The grade 2 interviews were approximately 20 minutes each, whereas the grade 4 and grade 6 interviews were 30 to 40 minutes each in length. The grade 2 interviews were shorter since their passage did not take as long to process as it was only 128 words. The responses given by the students indicated that the proposed study was feasible but the interview questions and the expository passages, although acceptable, were changed as described below. The students were capable of performing the tasks demanded by this study and were capable of explaining their reasoning.

Decisions Arising out of the Pilot Study Affecting the Main Study

An original grade 2 passage had been written in poetic form (see Appendix B). It was thought by the researcher that this format led the grade 2 students to believe that the first sentence was the title of the passage. The first sentence read, "many animals live at the zoo," and both grade 2 students stated that "animals" was the main idea of the passage. Therefore, the passage was re-typed using a typical story format with paragraphs (Appendix B).

The first question, "When your teacher asks you to find the most important idea or the main idea of a story, what does she want you to do?", was altered as it did not produce an adequate response from the students. The question was changed to, "When your teacher asks you to find the most important idea or the main idea of a story, what are you supposed to find?"

Another decision which arose out of the pilot study was to use prompts. The researcher had inadvertently used a prompt with one of the grade 2 students and this prompt had elicited further information. Therefore, it was thought that prompts might provide additional information which would otherwise not be given by the subjects. The questions and prompts which were given prior to the reading of the passages were as follows:

1. If your teacher asks you to find the most important idea or the main idea in a story, what are you supposed to find?

(Prompt) Anything else?

2. Can you tell me what you do to find the most important idea or the main idea of the story? What do you do first? Then what?

(Prompt) Pretend that I am a new grade 2* student

student and that I don't know how to find the most important idea or the main idea of a story. Explain to me how I would find the most important idea.

*The grade level the researcher chose for this question would be identical to the grade level of the student being interviewed.

Prompts were also used for the two questions which followed the reading of the passage. The questions and prompts were as follows:

1. What was the main idea or the most important idea?

(Prompt) Anything else?

2. Now tell me everything you can remember about how you found your answer.

(Prompt) What were you thinking as you were trying to find the most important idea or the main idea?

The researcher assumed that prompts would provide additional information. Hence, the subjects' response for the main idea of the passage would probably be more than one sentence. Therefore, in order to synthesize the subjects' information into one sentence, the subject would be asked to put his answer into one sentence.

Finally, the criteria for the selection of the sample were altered. Two of the students met the original criteria, but were quite shy and as a result, not very verbal. At that point, the decision was made to include the criterion that students were to be verbal.

Test Instruments

Canadian Test of Basic Skills
(Form 1, Multi-Level Edition
for Grades 3-8)

The Canadian Test of Basic Skills battery is a Canadian adaptation of the Iowa Tests of Basic Skills battery. The purpose of the battery is to evaluate generalized educational skills and ability. This study used the scores from the vocabulary test which measures noun, verb and adjective meanings and the scores from the reading comprehension test which measures the ability to grasp details, to determine purposes, to analyze organization and to evaluate a reading selection.

National and local norms are available. Canadian norms were obtained in 1966 with 30,000 children. A stratified random sample was made of children, who spoke English as their mother tongue, from 225 English-speaking schools across Canada.

Reliability coefficients ranged from .84 to .96 for the major tests and .70 to .93 for the subtests. The composite reliabilities for the whole test range from .97 to .98 for the different grades.

Gates-MacGinitie Reading Test (Revised 1978)
(Form I, Level B)

In order to obtain a measure of the grade two students' reading achievement, results from the Revised 1978 Canadian

Edition of the Gates-MacGinitie Reading Tests were used. This test consists of two parts, vocabulary and comprehension. The comprehension test measures the child's understanding of words or ideas within a passage. Following each passage are four pictures and the child is required to choose the picture which illustrates or answers a question about the passage. The vocabulary test consists of 45 items, each of which consists of four printed words accompanied by a picture illustrating one of the words. The child is required to recognize the words and then to choose the word that corresponds with the picture.

This test has two forms. It was normed using approximately 40,000 pupils from urban and rural schools throughout the ten provinces and the Yukon, in which most of the instruction was given in English. According to the Kuder-Richardson Formula 20, the split-half reliability co-efficients for both vocabulary and comprehension were an acceptable 0.92 (Ferguson, 1971).

SRA Primary Mental Abilities
(Revised 1963)

This instrument was designed to provide both multi-factored and general measures of intelligence. The test provides scores on four factors: Verbal Meaning, Number Facility, Spatial Relations and Perceptual Speed. In this study, the general intelligence score was used.

The standardization sample consisted of 32,393 children between the ages of 4 and 20 taken from certain public schools in five different regions of the United States. Reviews (Buros, 1972) have indicated test-retest reliability coefficients ranged between .83 and .95, which was accepted by the developers of this test. Validity for this test was established by correlating test scores with the results of the Science Research Associates Series: Reading.

Lorge-Thorndike Intelligence Test (Multi-Level Edition, Grades 3-9)

Results from this test were used to indicate a measure of intelligence in order to screen grade 4 and 6 subjects for the sample. Level B had been administered to the children when they were in the fourth grade, by the Edmonton Separate School Board personnel (ESSB). Although this test included both a verbal and nonverbal battery, only the score from the verbal battery was used to select the sample. The test was normed on a stratified sample of 4,000 to 5,000 students per grade. The odd-even reliability of the verbal battery ranged from 0.945 to 0.867 through levels A-F. With respect to validity, correlation of the verbal battery with results on the Weschler Intelligence Scale for Children was 0.75 and Otis Quick Scoring Mental Ability Test was 0.82.

The Research Instrument for the Main Study

The research instrument for the main study and the pilot study was a set of three expository passages, with one passage being used at each grade level, either grade 2, 4 or 6. The children in the sample at each grade level were given one expository passage for a total of three different passages in the research instrument.

The three passages represented the expository form and were chosen from readers which were not currently being used in the schools of the students for developmental and/or recreational purposes. The three passages had an animal theme and each grade level was given a version of the theme. The grade 2 passage was about the zoo, the grade 4 passage was about daddy longlegs and the grade 6 passage was about dolphins. The information in the three passages was of interest to the students and familiar to them, in order to minimize the effects that passage unfamiliarity would have on the readers' use of background knowledge. How familiar and how interested subjects were with the passage information was judged on the basis of a pilot study. The main idea of the passages was implicit which meant that it was implied though not plainly expressed in the passage. It was thought that an implicit main idea would be more difficult to process than an explicit main idea (Pearson et al., 1979).

The three passages ranged from 125-470 words in length, with the grade 2 passage being 128 words, the grade 4 passage being 463 words and the grade 6 passage being 419 words. Although the grade 4 passage was slightly longer than the grade 6 passage, it was not more difficult in terms of readability. The grade 2 passage was established at a grade 1.5 reading level and the grade 4 passage was established at a 3.3 reading level according to the Spache Readability Formula. The grade 6 passage was established at a 5.8 reading level according to the Dale-Chall Readability Formula. The researcher used two readability formulas since the Spache Readability Formula is designed for passages at a grade 1 to 4 reading level and the Dale-Chall Formula is designed for passages at a grade 4 to 11 reading level. The reading levels were below the subjects' grade level to ensure that the complexity of the language patterns and vocabulary did not interfere with the processing of the students.

Procedure for the Main Study

Thirty-six high proficiency readers, 12 at each of grades 2, 4 and 6 were identified according to the criteria listed in the selection of the sample. In-depth interviews were then conducted with each high proficiency reader in order to answer all three research questions and began on April 24th, one week after the pilot study was completed. The procedure was:

1. In-depth interviews of the children with the researcher were scheduled. The order of the interviews was randomized so that the children of each grade level participated on similar days and times. (See Table 3.2 for a schedule of the in-depth interviews). Interviews were conducted on Tuesdays, Wednesdays and Thursdays with two 20-40 minute interviews held in the morning and two 20-40 minute interviews held in the afternoon. The interviews took plade over a period of three weeks, were tape-recorded and were arranged to prevent contamination. That is, with the exception of School B, there was little opportunity for the participating students to discuss the in-depth interviews. Interviews were conducted in a quiet area outside of the classroom. Prior to the actual interview, the researcher engaged the children in a discussion pertaining to their interests and the purpose of this study in order to establish rapport. It should be noted that the researcher did not teach the concept of main idea to the students.

2. The in-depth interviews consisted of the following questions. Each grade 2 student was asked the following before reading the expository passage.

a. If your teacher asks you to find the most important idea in a story, what does she want you to find? Some people call the most important idea the main idea.

(Prompt) Anything else?

Table 3.2

Schedule of the 36 In-Depth Interviews for the Main Study

Time	Tuesday April 24 School A	Grade	Wednesday April 25 School A	Grade	Thursday April 26 School B	Grade
am	Subject #4	2	Subject #25	6	Subject #18	4
am	Subject #8	2	Subject #26	6	Subject #20	4
pm	Subject #22	4	Subject #32	6	Subject #12	2
pm	Subject #14	4	Subject #28	6	Subject #11	2
	Tuesday May 1 School C	Grade	Wednesday May 2 School C	Grade	Thursday May 3 School D	Grade
am	Subject #9	2	Subject #24	4	Subject #35	6
am	Subject #10	2	Subject #16	4	Subject #29	6
pm	Subject #36	6	Subject #3	2	Subject #23	4
pm	Subject #30	6	Subject #1	2	Subject #15	4
	Tuesday May 8 School B	Grade	Wednesday May 9 School E	Grade	Thursday May 10 School #	Grade
am	Subject #21	4	Subject #31	6	Subject #6	2
am	Subject #19	4	Subject #33	6	Subject #7	2
pm	Subject #2	2	Subject #17	4	Subject #27	6
pm	Subject #5	2	Subject #13	4	Subject #34	6

b. Can you tell me how you find the most important idea or the main idea of the story? What do you do first? Then what?

(Prompt) Pretend that I'm a new grade 2 student and that I don't know how to find the most important idea or the main idea of a story. Explain to me how I would find the most important idea.

The questions for the grade 4 students were as follows:

a. When your teacher asks you to find the main idea in a story, what are you supposed to find? The main idea is also the most important idea in the story.

(Prompt) Anything else?

b. How do you find the main idea or the most important idea of a story? Can you tell me what you do to find the main idea or the most important idea? What do you do first?

(Prompt) Pretend that I am a new grade 4 student and that I don't know how to find the most important idea or the main idea of a story. Explain to me how I would find the most important idea.

The questions for the grade 6 students were as follows:

a. If your teacher asks you to find the main idea or the most important idea of a story, what are you supposed to find?

(Prompt) Anything else?

b. Can you tell me how you go about finding the main idea or the most important idea? What do you do first?

(Prompt) Pretend that I am a new grade 6 student and that I don't know how to find the main idea or the most important idea of a story. Explain to me how I would find the main idea.

3. The subject was then given directions orally prior to the reading of the passage. He/she was told:

[Name], I would like you to read this passage silently. You can re-read parts of it if you wish. When you finish, I want you to tell me the main idea or the most important idea. Then I will ask you to tell me everything you can remember about how you found your answer.

When the subject completed reading the passage, he was asked:

a. What was the main idea or the most important idea of the story?

(Prompt) Anything else?

b. Can you put your answer into a sentence for me?

c. Now tell me everything you can remember about how you found your answer.

(Prompt) Anything else?

4. He/she was then given his second task through the following directions:

[Name], I want you to underline all the information in the passage that seemed really important to you as you were reading the passage.

5. After they completed this task, they were asked a series of questions adopted from McPike (1983):

a. Why was that information important?

b. Does this piece of information relate in any way to other information you find important?

c. Why didn't you find ____________ important?

d. How did all this information that you underlined help you to find the main idea or the most important idea?

6. Next, the students were required to circle the key words which helped them to find the main idea.

7. After they had completed this task, they were asked a series of questions adopted from McPike (1983):

a. You circled __________. Why was that a key word for you?

b. How did all these key words help you to find the main idea?

8. After the processing for the passage had been completed, the subject was asked:

a. Again, I would like you to tell me how you found the main idea or the most important idea when you were reading this passage.

(Prompt) Anything else?

In each of the 36 in-depth interviews, the researcher attempted to help the reader extend his explanations when they were unclear through a series of general questions which encouraged further explanation. The researcher was careful not to introduce any new information in the question in the hope that the question did not influence the student's answer. For example, subject 18, a grade 4 student, was asked how he would find the most important idea. An excerpt of the discussion is below:

> S Well, you'd read the story until you came to the part where it sort of branches out problems. And then how they solve the problems and where it branches out problems would be the main part.
>
> R Ok, like, what kind of problems might be in the story?
>
> S Well, dunno.
>
> R Different problems for different stories?
>
> S Oh, ya.
>
> R And the problem's usually the main idea?
>
> S Well, where the problems start branching out.
>
> R What do you mean by branching out?
>
> S A problem causes another problem and that problem causes another one, and that one causes another one.
>
> R And ok, when the problem causes another one, that's the main idea?
>
> S No, where the problem, the first problem forms.

Coding and Analyses of the Subjects' Task Performances and Their Protocols

The following section describes the procedures for analyzing in-depth interviews for across grade comparisons. Due to the small sample size within grades (n = 12), no defensible comparisons could be made within grades.

Procedures for Analyzing In-Depth Interviews

The 36 in-depth interviews were transcribed and each student was assigned a number. One sample protocol from each of grades 2, 4 and 6 is in Appendix C.

A categorization of the students' protocols occurred in three major areas: understanding of main idea, strategies used to find main idea, and readers' reasons for explaining why they underlined important information and circled key words.

The researcher first separated the students' responses of each of grades 2, 4 and 6 into the three areas. Each grade was dealt with separately and then the three grades were compared with regard to similarities and differences. The categories which emerged were then reported and examples were provided. A description of these results will be given in Chapter 4.

The coding of the students' task performances occurred in the area of relevant context as evidenced by the underlining of important ideas and circling of key words.

The researcher used two systems to code the use of context with regard to what information the students underlined. Both systems involved typing each sentence of the three passages on a separate piece of graph paper. The number of each student was typed below each sentence, i.e., 1-12 for the grade 2 passage, 13-24 for the grade 4 passage, and 25-36 for the grade 6 passage. In order to show what information the students underlined, an asterisk was placed beneath each word which had been underlined. For the first system, every sentence was divided into two sections: subject and predicate. Next, for each sentence, the researcher recorded what information each student underlined, subject or predicate. If the student only underlined part of a section, this was also recorded.

The second system involved the coding of each sentence with regard to main clauses and subordinate clauses. The researcher examined whether students underlined main and/or subordinate clauses. This information was recorded for grades 4 and 6 only, as the grade 2 passage did not contain any subordinate clauses.

The researcher used one system to code the use of context with regard to what information the students circled. For the three passages, each word was typed on a separate line. Then, the number of each student was typed across the page and the word which each subject circled was recorded. Words which were circled four or more times by students were considered to constitute a pattern, and were analyzed as to their grammatical function in the story. This researcher felt that it seemed reasonable to assume that patterns would emerge when words were circled four or more times.

Inter-Rater Reliability

The Arrington (1932) formula for determining the rate of agreement was used to assess the degree of inter-judge agreement. All three judges were professionals in their field of work, with judge number one being a statistician, judge number two being an accountant and judge number three being myself, a reading clinician. The number of scores agreed upon by the two judges and the researcher were divided by this total plus the disagreements:

$$\frac{2 \text{ x agreements}}{2 \text{ x agreements} + \text{disagreements}}$$

This formula was used to determine the rate of inter-judge agreements for three major areas: understanding of main idea, strategies used to find main idea and readers' reasons for explaining why they underlined important information and circled key words. Table 3.3 shows the results.

Table 3.3

Inter-Rater Reliability

Judges	Understanding of Main Idea	Strategies Used to Find Main Ideas	Readers' Reasons
I and II	1.000	.9090	.9523
II and III	1.000	.9523	.95523
I and III	1.000	.9302	.9638

The inter-reliabilities, which ranged from .9090 to 1.000 were thought to be acceptable by this researcher.

Chapter Summary

This chapter outlined the experimental design of the study which was based on the in-depth interviews with students and student task performances. The selection of the sample of 36 children for the main study was described in detail. Next, the selection of the sample of six students and the in-depth interviews used in the pilot study, along with decisions arising out of the pilot study and modifying the main study were discussed. Then, the four test instruments used to select the sample were reviewed. This was followed by a description of the three expository passages used as the research instrument. Finally the procedure which consisted of the questions asked in the in-depth interview for the main study, along with the analyses of the in-depth interviews were outlined.

Chapter 4

FINDINGS

The main purpose of this study was to investigate the concept of the term main idea of a representative group of high proficiency readers as to how that concept could change from grades 2 to 4 to 6 and secondly, how these readers found the main idea. This chapter will present the results of the grade 2, 4 and 6 student in-depth interviews and task performances in relation to these two stated purposes as addressed in research questions 1 and 2.

Students' Understanding of Main Idea (Research Question 1)

The purpose of this aspect of the study as phrased in research question 1 was to investigate the understanding of main idea as verbalized by grade 2, 4 and 6 students and secondly, whether their understanding reflected similarities or differences among grades 2, 4 and 6.

In answer to the question, "If your teacher asks you to find the main idea or the most important idea of a story, what are you supposed to find?", all 36 readers were familiar with the term main idea. Twenty-three different responses emerged, with 11 being grade-specific, 11 being similar between two grades and one being common across all three grades. The responses were recorded in Table 4.1, along with the number of subjects who verbalized the responses at each grade level. Among the 11 responses which were similar between two grade levels, four were similar between grades 2 and 4, six were similar between grades 4 and 6 and one was similar between grades 2 and 6. Each grade produced a variety of definitions, with 12 different definitions in grade 2, 14 different definitions in grade 4 and 10 different definitions in grade 6.

Although all students were familiar with the term main idea, the concepts varied in their consistency, completeness and correctness of their components. Five grade 2 students still relied on the teacher's instruction and workbook questions (Definitions 1 and 2). It was interesting to note one grade 2 student's concept of main idea which was stated as "a baby, an egg." This student was referring to a specific example from a previous story she had read in the classroom. Six grade 2 students and six grade 4 students had not formed a complete concept of main idea as they focused on isolated segments of the story (Definitions 7, 8, 9, 10 and 20). For instance, in Definition 8, two students believed that the main idea was the most interesting part of the passage rather than synthesizing the elements of the passage.

Between the grade 2 and 4 students, four definitions were similar (Definitions 7, 8, 9, 10). These definitions

Table 4.1

Students' Definitions of Main Idea

Children said, "I am finding	Grade 2	Grade 4	Grade 6
1. The right answer	3		
2. Answer related to teachers' instruction and workbook exercise	2		
3. What it means	1		
4. What's in the story	1		
5. A baby, an egg	1		
6. The thing that makes the most sense	1		
7. The part that tells the most	1	2	
8. Exciting, adventurous or interesting	2	2	
9. The main character	1	1	
10. The part about the names	1	1	
11. Something related to the title		1	
12. The main key words that the story would be about		1	
13. Where it usually leads from one problem to another		1	
14. Certain section of the story (the middle, close to the end, the first paragraph		2	1
15. What the story's based on, one of the centres		2	1
16. The plot of the story		1	1
17. The main part/topic of the story		2	1
18. What the author's trying to tell/show you		1	3
19. The moral		1	2

Table 4.1 (Continued)

	Grade 2	Grade 4	Grade 6
20. What's going to happen	1		1
21. The highlight			3
22. The part that makes differences in the ending of the story			1
23. What the story's about	3	6	6
Totals	12	14	10

seemed to describe elements of a narrative rather than an expository passage. For instance, four students felt that the main idea was the most adventurous, exciting or interesting part of the story. The grade 2 and 4 students may be more familiar with narrative passages.

The grade 4 students verbalized three definitions (Definitions 11, 12, 13) that were not mentioned by students in grades 2 or 6. Definitions 11 and 12 seem to involve a synthesis or summary of dominant details. For instance, one student felt that the main idea was the title, which is sometimes a summary of a passage. The grade 4 and 6 students had six definitions which were in common (Definitions 14, 15, 16, 17, 18 and 19). The grade 6 students had only two definitions which were not verbalized by either grades 2 or 4. Finally, one definition was shared by all three grades (Definition 23). This was rather a vague definition that the main idea is "what the story's all about."

Strategies Verbalized Before and After Reading Passages (Research Questions 2.1 and 2.11)

Prior to Reading the Passages

The 36 very proficient readers, 12 in each of grades 2, 4 and 6 were asked how they found the main idea prior to reading their passage. Table 4.2 summarizes the 49 responses from the 36 students. Six of the responses

Table 4.2

Strategies Students Reported Using to Find Main Idea Prior to Reading Passages

	Strategies	Grade 2 (N = 12)	Grade 4 (N = 12)	Grade 6 (N = 12)
0	No strategy awareness	3	3	
1	Relying on teachers' directions and/or workbook questions to frame a selective choosing of detail	6	1	
2	Establishing the major character	2	2	2
3	Using comprehension aids	2	1	3
4	Cueing on plot—determining the conflict and its resolution	1	2	4
5	Using a frequent repetition of a topic and/or person		3	1
6	Relying on a particular unit of information		3	2
7	Determining the dominant detail		1	3
8	Using key words or ideas	1		1
9	Using the most interesting part		1	
10	Using the most exciting part			1
Totals		15	17	17 (N = 49)

(Strategy 0) were quite general and reflected a lack of awareness as to how they found the main idea. For instance, three grade 2 and three grade 4 subjects stated that they just read the story over once or twice. Subject 10, a grade 2 student, stated:

> You read the story. You memorize [the main idea]. You keep it in your brain.

The remaining 30 subjects presented a personalized overview of their general strategy use. The following examples revealed the personalized nature of their descriptions:

S5 (Grade 2):

> S The main idea would be um well . . . the sheets have a, b and c on them and then you just circle the right answer.
>
> R How do I know which one is the right answer?
>
> S You gotta think hard.
>
> R Ok, do you know what I'd be thinking about?
>
> S About the answer.

S11 (Grade 2):

> Well, you have to read it and if it's a fiction book with the words then you can look at the pictures carefully and stuff like that. Sometimes if it's really good pictures . . . you can maybe think what the story's about.

S19 (Grade 4):

> I'd read the story and then I'd check what the other parts say and I'd compare it to one part and then I'd compare it to the other part and see which one's the best.

S18 (Grade 4):

> Well, you'd read the story until you came to the part where it sort of branches out problems. And then how they solve the problems and where it branches out problems would be the main part.

S35 (Grade 6):

> S Well, if you read a story, and let's say the story's about koala bears and they tell things about koala bears the pretty well main thing it is the koala bear like if they have the koala bear starting and then they tell some things about the bugs that live on the tree, the same tree that the koala bear does or something, the koala bear is still the main idea.
>
> R And bugs isn't?
>
> S It's just like a secondary thing.

S26 (Grade 6):

> S Well, first of all you have to read it and then just kind of like really . . . it's hard to put into words, just the thing that seems the most important in the story.
>
> R How do you figure out what's the most important thing?
>
> S Well, like if something keeps on coming up it'll probably be the main thing like if . . . the main character in the story plays hockey or something and hockey keeps coming up . . . that would probably be the main idea of the story, like that he's a hockey player.

Emerging from the categorization of student responses were nine strategies (1-9 on Table 4.2). The 36 subjects used each strategy by itself or in combination with one or more of the other strategies. The nine strategies used to find main idea were as follows:

1. Relying on the teacher's directions or workbook questions to frame a selective choosing of detail.

2. Establishing the major character.

3. Using a comprehension aid such as title, punctuation, etc.

4. Cueing on plot—determining the conflict and its resolution.

5. Using a frequent repetition of topic and/or person.

6. Relying on a particular unit of information such as a topic sentence, the introduction or conclusion.

7. Determining the dominant detail.

8. Using key words or ideas.

9. Using the most interesting part.

These strategies and their use by the students will be described in the following sections.

Relying on the teacher's directions and/or workbook questions. Six of the grade 2 subjects and one grade 4 subject depended on an external structure to find the main idea. The following explanations revealed the reliance on the teacher and/or workbook.

S4 (Grade 2):

S Sometimes she writes down the things on the chalkboard and then we look for things that are supposed to be in the sentences.

R What kind of things?

S Words. Well, there's about 12 words and you go hm, hm, hm, hm, hm, oh there's one, hm, hm, hm, hm, hm, hm, oh there's another one.

R Twelve words where?

S On the chalkboard, and you have to find ones that fit in the sentences.

S1 (Grade 2):

S Well, maybe she would put the word on the board and you could go check in one of the sentences and you'll find it.

R Oh, is the most important part usually one word?

S [Nods head].

Establishing the major character. Another strategy used to determine main idea centered on the establishment of the major character involved in the story. Two grade 2, two grade 4 and two grade 6 students used this strategy. Once the major character was selected, the subject cued on the character's actions and identified one or more of them to be the main idea or to lead to it.

S3 (Grade 2):

> I look through the story. I'm looking for what the characters or people do in it. Also looking for what it's mainly about.

S24 (Grade 4):

> You look through the story and say if it tells how old a person is or if he's being acting in the story or what they're doing or something, that's what's the main idea.

S29 (Grade 6):

> Well, then you'd probably read the story and see what the kids if there were kids in the story, what they were doing all the time and then you'd probably name that. Well, you just read the story really and then see if there's what all the people in there are doing and stuff and where it is and things like that.

Using comprehension aids. Some subjects relied on external cues such as titles, darker print, etc. Two grade 2, one grade 4 and three grade 6 subjects used these comprehension aids to find the main idea.

S6 (Grade 2):

S You could look at the title and whatever the title is you find what part of the story tells most about the title.

R Ok, what do I do if there's no title?

S It would be a bit harder but you'd have to sort of find a part that does tell you about it.

S23 (Grade 4):

Sometimes if it's on the back of the paperback book or something sometimes they have the main idea of the story or parts of it otherwise you'll just have to like start reading the book or go through the book.

S32 (Grade 6):

S Well, you read it. Maybe look over the things that were more important.

R Ok, and how do you know if something's important or not?

S Well, sometimes some things are underlined or darker in color. Ok, first you read the story, and then look for like main headings and like just maybe kind of like they say read between the lines and skim through everything and find the main things important.

Cueing on plot. This strategy was mainly verbalized by the older students, with one grade 2 student, two grade 4 and four grade 6 students using this strategy to find main idea. Some students did not explicitly state that they used this strategy but an analysis of their responses revealed that they selectively chose details which related to the establishing and resolving of the conflict.

S3 (Grade 2):

S I'd tell you to read through the story, very gently.

P And what am I supposed to do when I'm reading through the story?

S Look for what happens.

S28 (Grade 6):

S Well, you can read through it and you just try to get the main idea of it somehow. Well, it usually just comes to you maybe like you read through the story and it sort of comes to you.

R How does it come to you?

S Well, it depends what kind of story it is and sometimes maybe it's complicated or something and the—you can't really find what's going on and maybe it's really simple story like maybe a person comes along and then you have a party, but then this other guy comes along and he sees he hasn't been invited and you have an argument or something like that or maybe it's a story about divorce or something and this family splits up well then—and you can also tell from the title like you know what it's about.

S18 (Grade 4):

Well, you read the story until you come to the part where it sort of branches out problems. And then how they solve the problems and where it branches out problems would be the main part.

Using a frequent repetition of a topic and/or person. Establishing the topic by identifying the person and/or topic most often repeated was another strategy used by subjects to find main idea. Three grade 4 and one grade 6 subject employed this strategy.

S15 (Grade 4):

> You read the story over until you find say five paragraphs on main thing and then if you found that you'd write it down and then you'd read it over to see if it's the same thing.

S26 (Grade 6):

> Well, like if something keeps on coming up it'll probably be the main thing.

Particular units of information. Some students believed that the main idea could be found in a particular section of the story such as the introduction or conclusion. Two students thought that there would be one topic sentence which would encompass the main idea. In summary, three grade 4 students and two grade 6 students felt that the main idea was in a certain part of the passage.

S13 (Grade 4):

> Usually, it's at the start of the story so I just look at the first or second page and then I read through it and try to find it. Sometimes it's at the back.

S33 (Grade 6):

> Read the first sentence. Um, well first you read the first sentence in the paragraph and then skim over the paragraph and if it's if you don't think the first paragraph talks about the whole the rest of the paragraph look for another sentence that does.

Determining the dominant details. In order to find main idea, some students read the story and isolated all the details. Then, through the process of analysis and comparing, they determined which details were dominant.

One grade 4 subject and three grade 6 subjects used this strategy.

S19 (Grade 4):

> I'd read the story over and then I'd check what the other parts say and I'd compare it to the other part and see which one is the best.

S30 (Grade 6):

> S Well, what I do is like look through and I see which is more interesting or which might be bigger or which might involve more of the characters in the story and I compare them and see.
>
> R What do you mean by which one would be bigger?
>
> S Well, bigger or more important to the characters or to the object in the story, the main objective, which one meets the main objective.
>
> R Ok, and how do you find the main objective?
>
> S Well, I just try to compare and try to find out which one um ah which one seems more important than the others.
>
> R And what are you comparing?
>
> S Many of the events or special events in the story. First what you do is you look through the story and you try to get down what you think are the most interesting or the most different or changing events in the story and you compare them and which seems to involve more of the characters or the main object or the main whatever and you see which one involves more of all these things and whichever one does, usually is the main idea.

Using key words or ideas. One grade 2 subject and one grade 6 subject used key words or ideas to determine the main idea. The grade 2 subject could not explain how she used the ideas, but the grade 6 subject was able to verbalize that the key words were synthesized.

S12 (Grade 2):

S I read the story. And then somebody asks you questions. By listening carefully.

R To what?

S The story.

R And what do I listen for?

S Ideas.

S36 (Grade 6):

S Well, you read the story and you just try and you find the main words and then you kind of put them together in your mind and then you just and then you have it.

R Ok, how do you know which words are the main words?

S The ones that seem the most important.

R How do I know they're the most important?

S They just kind of stand out.

The most interesting part. One grade 4 student reported that the main idea of a passage was the most interesting part.

S17 (Grade 4):

> Well, you read through it. Well, look through, read through the story and you'd look at find the most interesting part to it.

The first part of question 2.1 queries what strategies very proficient readers in grades 2, 4 and 6 verbalized before they attempted to find the main idea of a passage. A further analysis of subject responses revealed an interesting relationship between grade level and concept of main idea. In order to study this relationship, the ten strategies were separated into three distinct areas (see Table 4.3) which are as follows:

1. no strategy awareness
2. reliance on teacher's directions and/or workbook question
3. reliance on text information.

Table 4.3

Categorization of Grade 2, 4 and 6 Strategies Before Reading Passage

	Grades					
	2		4		6	
Strategies	No. of Responses	%	No. of Responses	%	No. of Responses	%
No awareness	3	20	3	17		
Relied on teacher and/or text	6	40	1	6		
Relied on text	6	40	13	76	17	100

A similar percentage of responses of grade 2 and 4 students (20% and 17% respectively) showed students were not able to state the strategies they used to find main idea, whereas the entire sample of grade 6 students was able to verbalize a strategy.

Another group of responses of grade 2 and 4 students (40% and 6% respectively) showed students depended on an external source of information such as the teacher and/or workbook in order to find the main idea.

The third and final group of responses of students in grades 2, 4 and 6 (40%, 76% and 100% respectively) revealed the students had formed a concept of main ideas as they found the main idea through the use of text information. Among these students, differences emerged as to how they interacted with the text, and these differences are listed below and in Table 4.4.

1. Associating the main idea with graphic features such as titles and darker print (Strategy 3).

2. Associating the main idea with the characters (Strategy 2, 5).

3. Associating the main idea with the ideas in the text (Strategy 4, 6, 7, 8 and 9).

Table 4.4

Strategies of Grade 2, 4 and 6 Students which Relied on the Text

	Grades					
	2		4		6	
Strategies Which Relied on Text	No. of Instances	%	No. of Instances	%	No. of Instances	%
Associating main idea with graphic features	2	33	1	8	3	17
Associating main idea with the characters	2	33	5	38	3	17
Associating main idea with the ideas	2	33	7	53	11	64

Thirty-three percent of these grade 2 students' responses and a smaller percentage of grade 4 and 6 students' responses (8% and 17% respectively) relied on graphic features to find the main idea.

Another finding was that the majority of grade 4 and 6 student responses (53% and 64% respectively) relied on text information which focused on ideas in the passage. To a lesser extent, only 33% of the grade 2 students' responses found the main idea through the use of ideas presented in the passage.

After Reading the Passages

After reading the passages and producing the main idea, the 36 readers were again questioned as to how they found the main idea (see Table 4.5). Of the 36 students, six grade 2 and one grade 4 student did not know how they found the main idea. These responses were vague and consisted of statements such as "I found 'em by reading" and "I was thinking of the answer." However, seven strategies used to find main idea did emerge from their verbalizations. Four of the strategies were similar to strategies the students mentioned prior to reading the passage (Strategies 5, 6, 8 and 10). They were as follows: using a frequent repetition of a topic and/or person, relying on a particular unit of information, using key words and ideas, and using the most exciting information. The remaining three strategies had not been

Table 4.5

Strategies Students Reported Using to Find Main Idea After Reading Passages

	Strategies	Grade 2 (N = 12)	Grade 4 (N = 12)	Grade 6 (N = 12)
0	No strategy awareness	6	1	
1	Relying on teacher's directions and/or workbook questions to frame a selective choosing of detail			
2	Establishing the major character			
3	Using a comprehension aid			
4	Cueing on plot—determining the conflict and its resolution			
5	Using a frequent repetition of a topic and/or person		3	2
6	Relying on a particular unit of information	2		1
7	Determining the dominant details			
8	Using key words or ideas		2	
9	Using the most interesting part			
10	Using the most exciting part		1	
11	Summary by generalization		1	6
12	Establishing the topic and adding the differences		4	3
13	Cueing into the character's actions	4		
Totals		12	12	12

previously mentioned by the students (Strategies 11, 12 and 13). These new strategies which were used to find main idea were as follows: summary by generalization, establishing the topic and adding the differences, and cueing into the character's actions. It is interesting to note that the students did not now employ six of the strategies that they had described prior to reading the passage (Strategies 1, 2, 3, 4, 7 and 9):

1. Relying on teacher's directions and/or workbook questions to frame a selective choosing of detail.
2. Establishing the major character.
3. Using a comprehension aid.
4. Cueing on plot—determining the conflict and its resolution.
5. Determining the dominant detail.
6. Using the most interesting part.

Using a frequent repetition of a topic and/or person. Three grade 4 and two grade 6 students established the main idea by identifying the subject most often repeated.

S18 (Grade 4):

> I read the story through and I listened carefully to reading it and I heard almost all the time daddy longlegs and since I heard it so many times I knew that that must be the main part, the main character.

S30 (Grade 6):

> Well, I read through the story and picked out what came up most in the story and what stuff it was talking about.

Relying on a particular unit of information. Two grade 2 students and one grade 6 student relied on a particular unit of information to find the main idea. For these three students, the main idea could be found in a sentence or paragraph. Subject 2, a grade 2 student stated:

> By reading the story. By looking at the different paragraphs and reading it to see the one that tells the most about the story.

S32 (Grade 6):

> Basically, I just looked at the first sentence of the paragraph and if it didn't fit with the rest of the paragraph I tried to read it over and that's how I found my answer.

Using key words or ideas. Two grade 4 students relied on determining the key words in order to find the main idea. Subject 21, a grade 4 student stated:

> I read through the story and I got more or less seven words from each paragraph and put them together to make one sentence and I took out a couple of words so the sentence wouldn't be too long.

This student selected the key words and synthesized them in order to find the main idea.

Using information which was exciting. One grade 4 student determined the main idea by using information which was exciting. She also thought the passage was a "play."

S24 (Grade 4):

> S I just pick out the main ideas.
>
> R How did you know which ones were the main idea?

S Well, some of the parts are boring and some of the parts are exciting.

Summary by generalization. Subjects who used this strategy (one grade 4 and six grade 6 students) isolated significant different details and then extracted the general common point. Subject 19, a grade 4 student, thought the main idea was about 'survival.' Below is an account of how she reached this generalization.

> Well . . . a daddy longlegs has four pairs of legs. I used that part to tell me how . . . he can travel very fast and that's part of what I said [survival] and then on the other page . . . behind the legs are two odor glands and that's how it keeps away the birds and toads and large insects and it doesn't have that nice of a color so you can't see when it goes across the grass. It moves quick so other birds can't get it, that's good and that's how I figured it out.

Subject 27, a grade 6 student, thought the main idea was how dolphins defend themselves.

> Well, it sort of like built up when I was reading it, like it starts with like how they look and then it goes up to how they defend themselves, and how they nurse themselves. I was thinking about how they look, and what to think about and about their sounds and all that so I can put it together.

Establishing the topic and adding the differences. This strategy, used by four grade 4 and three grade 6 students, involved finding the topic which was either daddy longlegs or dolphins and then adding up the major points made about the topic in order to find main idea. Subject 20, a grade 4 student, explained how she found the main idea:

> Well . . . at the beginning I knew it was daddy longlegs because of the first sentence. Well, it says daddy longlegs has eight long thin legs and like that's how I thought well it must be about daddy longlegs cause the first paragraph isn't going to talk about something totally different than what the whole story's based on. And then like at the beginning I thought it was just daddy longlegs but as I went through it they mentioned lots about the legs so then I decided it was about his legs.

S25 (Grade 6):

> Well, the first thing they mentioned the dolphin so much, I knew that was the main character. And everything was about how the dolphin lived.

For this student, the main idea was about 'how dolphins lived.'

Cueing into the characters and their actions. This strategy was used solely by the grade 2 students. When asked for main idea, four grade 2 students generated a list of what the people and animals did at the zoo. When questioned as to how they found main idea, they again focused on and recalled a list of the character's actions. Student 1 stated:

> Well, when you read it, it has all the things they do . . . they feed the animals, they keep the cages clean, they clean the animals too and some people take the calls and sell the tickets.

These students were focusing on details more than the main idea.

The second part of question 2.1 queries what strategies to find the main idea students in grades 2, 4 and 6 verbalized after reading the passage. A comparison of the number of strategies verbalized before and after reading the passages revealed a decrease in the number of strategies verbalized after reading the passage, with each student verbalizing only one strategy. (See Table 4.6 for a comparison of the number and type of strategies verbalized by the students in each grade level.)

Table 4.6

Comparison of Grade 2, 4 and 6 Strategies Before and After Reading Passage

	Grade					
	2		4		6	
Strategies	Before	After	Before	After	Before	After
No awareness	20%	50%	17%	8%		
Relied on teacher and/or text	40%		6%			
Relied on text	40%	50%	76%	91%	100%	100%

There was also a different relationship between grade level and concept of main idea. Fifty percent of the grade 2 students (N = 6) were unable to verbalize their strategy use whereas the entire sample of grade 6 students (N = 12) and 91% of the grade 4 students (N = 11) were able to verbalize their strategy use. The absence now of an external source such as a teacher may account for the large percentage of grade 2 students who were unaware of how they found the main idea when they associated strategies with a specific text read.

A comparison across grade levels revealed that the higher grade levels (4 and 6) had more interaction with the text information and associated the main idea primarily with ideas in the text (see Table 4.7). The grade 2 students relied on the text information to a lesser extent and they associated the main idea primarily with characters in the text.

Table 4.7

Comparison of How Grade 2, 4 and 6 Students Interacted with the Text Before and After Reading the Passage

	Grade					
	2		4		6	
Strategies	Before	After	Before	After	Before	After
Associating with graphic features	33%		8%		17%	
Associating with the characters	33%	66%	38%	27%	17%	17%
Associating with the ideas	33%	34%	53%	72%	64%	83%

The Use of Context in Finding Main Idea (Research Question 2.2)

The purpose of this aspect of the study was to investigate what context was used by the readers to find main idea and for what reasons the reader found the information important. The students were given two task performances in order to ascertain what context was used by the reader. The first task performance involved underlining important ideas and was analyzed in light of what part of the sentence was underlined: main clause and/or subordinate clause and subject and/or predicate. This information would reveal whether the students focused on basic information (main clauses) or unique characteristics which described or amplified this basic information (subordinate clauses) when finding main idea. In addition, this researcher could note whether students cued into the agent of the action (subject) or the action (predicate) when finding main idea. This information would show where the students found the most helpful text information when finding main idea.

The second task performance involved circling key words and was analyzed according to the grammatical function of each word circled. This information would show whether the students were discriminating in their choice of key words when finding main idea. For instance, those who circled words which were high in meaning such as nouns and verbs were thought to be more discriminating than those who circled function words which grammatically structured the words high in meaning.

After investigating what context was deemed important by the readers, their reasons for designating text as important information was studied. This provided insight into how he/she used his/her background knowledge and the text to create a contextual framework for interpreting main idea.

Underlining of Important Ideas (Research Question 2.2a)

Underlining of subject and predicate. One way of determining what part of the sentence readers cued into when finding main idea was to divide the sentence into two parts: subject and predicate. Hence, in the sentence, "But they are not fish, "But they" was the subject and "are not fish" was the predicate. If the student only underlined part of the subject and/or predicate, this was also recorded. Table 4.8 illustrates a comparison of the three grades with regard to what information they found important and underlined.

The significant findings were as follows:

1. All three grade levels (2, 4 and 6) found the subject (agent of the action) almost equally as important as the action (predicate).

2. The grade 6 students were the most discriminating when underlining the predicate of the sentence in that these students underlined information which was more central to the main idea as opposed to information which was peripheral. For instance, in the sentence "A dolphin's ears are two pinholes on the side of its head," subject 30 only underlined the word "pinholes."

Table 4.8

Student Underlining of Subject and Predicate

	S*		$\cancel{S}$		P		$\cancel{P}$	
Students in	Instances	%	Instances	%	Instances	%	Instances	%
Grade 2	57	26	1	.5	62	29	29	9
Grade 4	158	26	16	3	177	29	24	4
Grade 6	196	36	9	2	186	34	76	14

*
S = subject
P = predicate
$\cancel{S}$ = part of the subject
$\cancel{P}$ = part of the predicate

3. The grade 6 students underlined more information than the grade 2 and 4 students.

Underlining of main clause and subordinate clause. This information was only recorded for grades 4 and 6 as the grade 2 passage did not contain subordinate clauses (see Table 4.9).

Table 4.9

Underlining of Main and Subordinate Clauses

	Students in					
	Grade 4			Grade 6		
		Underlined			Underlined	
Clauses	Possible	No.	%	Possible	No.	%
Main	552	183	33	408	220	54
Subordinate	84	20	23	144	54	40

The data revealed the following:

1. Both grade 4 and 6 students underlined more main clauses than subordinate clauses.

2. The grade 6 students underlined more information and more subordinate clauses than the grade 4 students.

Discussion. Of interest was the fact that the grade 6 students underlined a larger percentage of main clauses than the grade 4 students. This suggests that the grade 6 students were more aware of basic information which is highlighted in the main clauses and can be used to determine main idea.

The grade 6 students also underlined a larger percentage of subordinate clauses than grade 4 students. According to Harrell (1957), older children used more subordinate clauses in both their written and oral language than younger children. Oral language precedes reading, and this suggests that older students in grade 6 would cue into a larger percentage of subordinate clauses. If this is the case, the grade 6 students may have been higher in the hierarchy of concept development of main ideas as subordinate clauses reflect unique characteristics of the basic information that is highlighted in the main clause.

Circling of Key Words

To ascertain what word contexts within subjects and predicates and main or subordinate clauses were relevant to very proficient readers when finding main idea, the researcher recorded what information the students circled. The words in each passage were classified according to their grammatical function and seven categories emerged: noun, pronoun, verb, adjective, adverb, participle and function words. Function words were those higher in function than in meaning. For instance, the words "like," "and" and "where" are function words in the sentence "Dolphins look like fish and they live where fish live." Key words which were circled by four or more students were considered to be worthy of note (see Table 4.10).

Table 4.10

Circling of Key Words

Grammatical Function	Students in Grade 2	Grade 4	Grade 6
Noun	25%	30%	32%
Verb	32%	24%	24%
Pronoun			6%
Adjective	20%	32%	16%
Adverb	7%	7%	11%
Function word	20%	9%	7%
Participle			4%

The following findings emerged from the data:

1. Students in grades 4 and 6 circled a similar percentage of nouns, verbs and function words.

2. Students in grade 2 and 4 circled an identical percentage of adverbs.

3. Students in grade 2 circled a smaller percentage of nouns than the grade 4 and 6 students.

4. Students in grade 2 circled a higher percentage of function words and verbs than students in grades 4 and 6.

5. Students in grade 6 circled a higher percentage of adverbs than grade 2 and 4 students.

6. The grade 4 students circled the highest

percentage of adjectives, followed by the grade 2 and 6 students respectively.

Readers' Reasons for Use of Context

Underlining Important Information

The 36 readers were asked to explain why each piece of information they underlined was important for finding the main idea. In all, 368 reasons were voiced, 69 from grade 2, 139 from grade 4 and 161 from grade 6. A categorization of all their 368 reasons identified 13 common reasons which are listed below and are summarized in Table 4.11. The readers' explanations for underlining important information to find main idea were as follows:

1. The information was related to other passage information.
2. The information was categorized by the reader.
3. Information was directly associated by the reader to his background experience.
4. Information pictured a scene or image that could be imagined by the reader.
5. Information clarified a particular idea which the readers or general public held.
6. Information was a dominant detail that helped to establish the main idea.
7. The information provided descriptive detail.
8. The information fulfilled the requirements of the

Table 4.11

Readers' Reasons for Explaining Why They Underlined Information to Find the Main Idea

	Students in					
	Grade 2		Grade 4		Grade 6	
Reasons Given	No. of Responses	%	No. of Responses	%	No. of Responses	%
1. Related	5	7	14	10	6	4
2. Categorized			4	3	15	9
3. Associated	2	3	10	7	20	12
4. Imagery	1	1	3	2		
5. Clarified			11	8	14	8
6. Dominant detail	1	1	5	3	3	2
7. Descriptive detail	10	14	43	30	46	28
8. Story schema			1	1	5	3
9. New information			1	1	13	8
10. Mnemonic device					9	5
11. Repeated information			1	1	3	2
12. Inference	49	72	38	27	26	16
13. Interesting			8	5	1	1
Totals (368)	68	18%	139	38%	161	44%

general schema for an expository passage.

9. The information was unfamiliar and the subject was interested in learning it.

10. The information was used as a mnemonic device.

11. The information, because it was repeated throughout the passage, emphasized a particular idea.

12. The information provided a base for making inferences about the qualities and actions of the major characters.

13. The reader found the information interesting.

The information was related to other passage information. In some instances, the readers found the information important to find main idea because it was related to or was part of other passage information. For example, subject 18, a grade 4 student, stated that the sentence, "Daddy longlegs spend much of their time cleaning or preening their longlegs, especially their second legs," was important because:

> then they can smell and hear and taste so good and then their second legs, they're used the most, so they have to be washed the most.

This illustrated a cause and effect relationship. That is, cleaning legs was related to other passage information which stated that clean legs resulted in better senses.

The information was categorized by the reader. Some subjects in grades 4 and 6 read the passage and classified the information into superordinate categories in order to find main idea. For instance, in the dolphin passage, four categories emerged: the dolphin's social structure, habits, hearing ability, and dangers. Subject 31, a grade 6 student, found the statement, "A dolphin's ears are two pinholes on the sides of its head" important for the following reason:

> This one, it starts getting different, but it still talks about the dolphin. They both talk about his hearing ability.

The subjects would give a label to the category and in the above instance, the label was "hearing ability."

Information was directly associated by the reader to his background experience. In order to find main idea the students also related their background experiences to the text. Usually, the text information contradicted or was not a part of the reader's background experience. For instance, in the dolphin passage, the readers often compared the dolphins to their own personal knowledge of fish, people and mammals. Subject 27 found the sentence "But a dolphin must not dry out or it will become overheated" important for the following reason:

> Well, like some of the mammals like they don't have to stay wet when they come out but the dolphins are different, so they have to keep moist so they won't dry out like it says there.

This reader compared the text information to his own knowledge of mammals, and came up with the realization that dolphins are different than some mammals.

Information pictured a scene or image that could be imagined by the reader. Information that helped the reader picture or imagine the experience was used by some readers to relate to the experience and to help him find the main idea. Subject 17 stated that the sentence "A daddy longlegs has four pairs of legs" was important "so you can see where the legs are." The text information enabled the reader to visualize the daddy longleg's legs.

The information clarified a particular idea which the readers or general public held. The text information would correct or clarify either the reader's concept or the general public's concept. This category was used only by grade 4 and 6 students. Subject 21 gave the following explanation for the importance of "Only clean legs can do a good job of touching, tasting, smelling and hearing."

> Well, that's to correct people's thinking cause they probably don't really pay attention to spiders cleaning their legs.

This reader felt that the information was valuable in that it clarified the general public's knowledge of daddy longlegs.

The information was a dominant detail that helped to establish the main idea. The readers found a dominant detail which was repeated and/or stressed throughout the various paragraphs. This dominant detail helped to establish the major topic or main idea. Subject 3, a grade 2 student, felt that "many animals live at the zoo" was an important statement for the following reason:

> Uhm it's pretty well the main part about the whole story so far. Cause you couldn't have all this without telling that animals live at the zoo. A little kid might go hmm, a zoo with no animals.

Subject 20, a grade 4 student, felt that "It uses these legs to touch, hear, taste, and smell" was important because the passage contained a great deal of information concerning the legs and therefore the sentence was a dominant detail.

> Ok, well that's one of the main ideas because they say lots about how . . . they use them, like sort of a paragraph will . . . be based like there it says where . . . they smell, like they have odor glands, and that's like all these are the legs and that's important because they all talk about . . . their legs too.

This subject believed that a great deal of information about the legs constituted one of the main ideas.

The information provided descriptive detail. Quite often, information was important not because it related to the main idea, but because the reader required the information to know more about the topic. The information was not necessarily new to the subject and furthermore, it was not related to the main idea. For instance, subject 34, a grade 6 student, usually attended to information because it helped her understand more about the dolphin. She found "Usually a dolphin rises out of the water every half minute or so to open its blowhole and take a gulp of air" an important sentence because:

> It tells you how long it can stay under water and how and when it has to come up for air.

The information fulfilled the requirements of the general schema for an expository passage. Only three subjects verbalized an awareness of story schema which they used to find main idea. A grade 4 student understood that expository passages had an introduction and two grade 6 students were aware that the body of expository passages was comprised of facts. Subject 20, a grade 4 student, stated that "A daddy longlegs has eight long thing legs" was important because:

> Well, it's the first sentence, and the first paragraph and that's usually the introduction to everything.

Subject 35, a grade 6 student, found the sentence "But if it has to, a dolphin can hold its breath for six or seven minutes" important for the following reason: "Well, this is mostly just like a fact you know."

The information was unfamiliar and the subject was interested in learning it. Only two subjects found new information important. The grade 4 subject attended to one piece of new information because he found it interesting whereas the grade 6 subject attended to 11 units of information because they were unfamiliar to him. For instance, subject 32, a grade 6 student, found the statement, "A sick dolphin has a special problem" important because:

> Well, like they have a big problem and we don't. We can sleep as long as we want and they'll drown if they sleep too long and I never knew like dolphins would sleep once they got sick.

Subject 32 related the text information to his background experience about people and noted the differences between people and dolphins.

The information was used as a mnemonic device. Subject 36, a grade 6 student, was the only person who used information as a tool for remembering the material. Generally, she would attend to three or four words in the sentence and store them in her memory bank for future retrieval. For this subject, the sentence "Fish can breathe in water, but mammals can't" was important for the following reason:

> So that I remember in that category . . . so I can keep it in my head for later use like . . . we're mammals and we don't breathe under water.

The information, because it was repeated throughout the passage, emphasized a particular idea. Another reason for information being important was that the information was repeated many times during the passage and if the author gave such emphasis, it must be important. Subject 26, a grade 6 student, often found information important because it was repeated or re-appeared throughout the text.

The sentence "Dolphins can live out of water for some time if they have to, since they breathe air" was important to this person because:

> There again, it's telling you that they're . . . mammals and they breathe air, they don't have to live in water.

The fact that dolphins can live out of water for some time was stressed throughout the passage, and this reader used the repeated information to help him establish his main idea that dolphins are mammals.

The information provided a base for making inferences about the qualities and actions of the major characters, i.e., people, the daddy longlegs, and the dolphin. According to Anderson and Shifrin (1980):

> A message is only a cryptic recipe for the construction of a meaning; the message itself does not contain all of the ingredients; much must be supplied by the bearer or reader from knowledge of the world and analysis of the content. (p. 33)

The process of inferring involves the interaction of background knowledge with print information, and has been viewed as crucial to comprehension. Although inferences can generally be supported, they are not right or wrong. Subject 1, a grade 2 student, found the sentence [illegible]me people take calls" important for the following reason:

> Well, maybe if they would take calls let's say they would report into see and tell them the name let's say a kid got lost of theirs and they would report it on and it would tell them where they would probably be or else it would say and the kid would hear them and come right to that spot where they would be waiting for them.

Subject 1 was not constrained by the text information and went on to elaborate why the sentence was important. Subject 18, a grade 4 student, made an inference as to why the daddy longlegs "has eight long thin legs."

> Because if he had less than eight he'd wobble around, if he had only four he couldn't go very fast, so he couldn't catch his prey.

The text information provided a base for making inferences about the actions of the daddy longlegs. Subject 33, a grade 6 student, made an inference about the dolphin which was based on the sentence "The bigger male dolphins swim around the outside." Subject 33 found this important because:

> Um, because it tells that the dolphins are smart that if a killer whale or a shark comes to try to attack them they'll form a circle and the bigger fish or the bigger dolphin will make a circle around the mother.

Information describing the dolphins' actions allowed the reader to make an inference about the dolphins' nature, i.e., they are smart.

The information was interesting to the reader. One grade 6 student and four grade 4 students underlined information to find the main idea because they thought it was interesting. Student 21, a grade 4 student, explained why she underlined "These hairs are the daddy longlegs ears."

> Well, it's interesting how like it um that their hairs sort of listen for them.

The findings revealed that the three grade levels had two primary reasons for underlining important information to find the main idea. The first reason was that the text information provided descriptive detail (Reason 7). A similar percentage of grade 4 and 6 students (30% and 28% respectively) and a smaller percentage of grade 2 students (14%) attended to descriptive information because it enabled them to know more about the topic.

The second reason was that the information provided a base for making inferences about the qualities and actions of the major characters (Reason 12) which would assist the reader in the determination of main idea. A higher percentage of grade 2 students (72%) and a smaller percentage of grade 4 and 6 students (27% and 16%) interacted with the text in this manner.

Also of interest was that the grade 4 and 6 students interacted with the text in more ways than the grade 2 students. That is, the grade 2 students verbalized a total of six reasons whereas the grade 4 and 6 students verbalized twice that number.

Circling Key Words
(Research Question 2.2b)

The 36 readers were asked to explain why the key words they circled were important to them when they attempted to find the main idea. A categorization of all their reasons identified six common reasons which are listed below and summarized in Table 4.12:

1. The information, when added together, provided a summary of the main idea.

2. The information was new or unfamiliar to the reader and not relevant in finding main idea.

3. The information was interesting to the reader and not relevant in finding main idea.

4. The information repeated the subject or a statement made about the subject.

5. The information provided a framework or outline of the passage.

6. The reader used the key words to predict the upcoming information.

In addition, five grade 2 students did not state a reason as to why they circled the key words.

The information, when added together, provided a summary of the main idea. Two grade 2, three grade 4 and six grade 6 readers felt that the key words served to summarize the main idea.

S2 (Grade 2):

All things that people have to do at the zoo.

Student 2 selected key words which were related to people's actions and then synthesized this information into the main idea which was what people do at the zoo.

Table 4.12

Readers' Reasons for Explaining Why They Circled Key Words

	Students in					
	Grade 2		Grade 4		Grade 6	
Reasons	No. of Responses*	%	No. of Responses	%	No. of Responses	%
0. No reason given	5	41				
1. Summary	2	16	3	25	6	50
2. New information	1	9				
3. Interesting information	1	9	1	9		
4. Repeated information			5	41	2	16
5. Framework	3	25	2	16	4	33
6. Predict			1	9		
Total (36)	12		12		12	

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*Each student gave only one response, so, for example, five responses were made by five students.

S19 (Grade 4):

> I put it all together and it ends up like survival and . . . I read my words that I circled and they're all survival . . .

S27 (Grade 6):

> They all tell about the behaviour of the animals and how they treat each other and their qualities like their ears and everything and their teeth and it tells about like how different they are from other mammals. I pieced it all together and tried to get it into one big sentence.

The information was new or unfamiliar to the reader. Only one grade 1 student stated that he/she circled key words because the information was new to them. The information underlined was not relevant in regard to finding the main idea.

S3 (Grade 2):

> Well, they're telling me things that I did not know.

The information was interesting to the reader. One grade 2 and one grade 4 student circled key words because they found them interesting. In light of finding the main idea, the information was irrelevant.

S5 (Grade 2):

> Well, it was easy, because I told you the other words were blah [not interesting].

Student 5 was not very articulate and often substituted the word blah for uninteresting.

The information repeated the subject as a statement made about the subject. Five grade 4 and two grade 6 students felt that the repetition of a key word throughout the passage indicated the main idea of the passage.

S20 (Grade 4):

> Well they helped me you read it like after you notice the "legs" are repeated . . . and right away that legs has to be the main idea.

S26 (Grade 6):

> Cause they're all saying the same thing.

The information provided a framework or outline of the passage. Three grade 2 students, two grade 4 students and four grade 6 students used the key words to provide a skeletal framework of the passage. Their answers indicated that they focused on the dominant details of the passage and then synthesized these details in order to formulate the main idea. This category was similar to Category 1 except that the student did not state that they summarized the dominant details.

S1 (Grade 2):

> Because the words, they're different. It tells you what they do, it tells you what it means to the animals.

S22 (Grade 4):

> Because saying what he does the most or what he's related to.

S35 (Grade 6):

> Well it tells you a lot, well you know the enemies, about the shark and . . . it all comes down to that

> the dolphins are animals that work together as a group you know they're not independent at all.

The reader used the key words to predict the upcoming information. One student in grade 4 reported that the key words were used to help them determine the main idea.

S14 (Grade 4):

> Well, if I looked at the key words I look further down and it might say something about the same thing up here . . . it might tell you a little bit about the other stuff around.

The findings were summarized as follows:

1. Five of the 12 grade 2 students were unable to explain why the key words were important to them when they attempted to find main idea.

2. The remaining seven grade 2 students found the key words important because they provided: a framework of the passage (3), a summary of the passage (2), new information (1) and interesting information (1).

3. Five of the 12 grade 4 students found the main idea through the use of repeated information. The remaining seven grade 4 students felt that the key words provided: a summary of the main idea (3), a framework of the passage (2), interesting information (1) and a means to predict the upcoming information (1).

4. Six of the grade 6 students found the key words important because they provided a summary of the main idea. The remaining six students felt that the key words provided: a framework of the passage (4) and repeated

information (2) which indicated the main idea of the passage.

The purpose of Question 2.2b was to investigate the readers' reasons for explaining why they circled key words. An analysis of subject responses revealed a relationship between grade level and concept of main idea. In order to study the nature of this relationship, the six reasons were separated into three distinct categories (see Table 4.13) which are as follows:

1. No reason given (Reason 0).
2. The information was irrelevant for the purpose of finding main idea (Reasons 2 and 3).
3. The information was relevant for the purpose of finding main idea (Reasons 1, 4, 5 and 6).

In Category 1, five of the grade 2 students could not give a reason as to how the information they circled helped them to find the main idea. The entire sample of 24 grade 4 and 6 students was able to verbalize their reasons for circling key words.

Three grade 2 and 4 students found information important for its own sake, rather than for finding the main idea. Eleven of the 12 grade 4 students (91%) and the entire sample of grade 6 students (100%) were active readers in that they interacted with the text information in an attempt to find main idea. In comparison to the grade 4 and 6 students, a smaller percentage (41%) of the

Table 4.13

Categories of Readers' Reasons for Circling Key Words

	Students in					
	Grade 2		Grade 4		Grade 6	
Categories of Reasons	No. of Responses	%	No. of Responses	%	No. of Responses	%
1. No reason given	5	45				
2. Information was irrelevant to finding main idea (Reasons 2, 3)	2	18	1	9		
3. Information was relevant to finding main idea (Reasons 1, 4, 5, 6)	5	41	11	91	12	100

grade 2 students were active readers.

Chapter Summary

This study examined the relationship between concept of main idea and grade level through the use of task performances and in-depth interviews which enabled the researcher to investigate the student's concept of main idea and how he processed information to find the main idea of an expository passage. Although all students were familiar with the label of 'main idea,' their concept of main idea varied in their consistency, completeness and correctness of their components.

An analysis of the readers' strategies to find main idea before and after reading the passages revealed some interesting findings. The grade 4 and 6 students had developed the concept of main idea to a greater extent than the grade 2 students. This was apparent as many of the grade 2 students relied on an external source such as the teacher to find main idea and many were unable to verbalize their strategy use. When the students did interact with text information to find main idea, a larger percentage of the grade 4 and 6 students associated the main idea to ideas in the text as opposed to the grade 2 students who usually associated the main idea with the characters or graphic features in the text.

This study also examined what context was used by the reader and for what reasons the reader found the information important. Along with analyzing more text information, the grade 6 students were more discriminating in the text information they did analyze. For instance, rather than analyzing chunks of information, the grade 6 students often underlined the part of a predicate which contained key information relevant to the main idea of the passage.

There was a parallel between the grade 4 and 6 students with regard to the grammatical function of the key words they used to find main idea. The grade 4 and 6 students interacted with nouns more than verbs whereas the reverse was true for the grade 2 students. Also, the grade 2 students found function words important in relation to finding main idea.

This study also looked at why readers found information important. The grade 4 and 6 readers' reasons were quite relevant to the process of finding main idea. For instance, they used the text information to provide a summary as framework of the passage which led to the main idea. The grade 2 students, however, were not as constrained by the text. The reasons given by the grade 2 students for circling key words were sometimes irrelevant to the process of finding main idea and 45% of the grade 2 students were unable to even state why they found the information important.

Chapter 5

SUMMARY, CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The major purpose of the study was to investigate the concept of the term main idea of a representative group of high proficiency readers as to how that concept could change from grades 2 to 4 to 6 and how these readers found main idea.

Summary of the Study

The sample for the main study consisted of 12 high-proficiency readers at each of grades 2, 4 and 6 for a total of 36 students in the total sample. The grade 2 readers were selected from five schools within the Edmonton Separate School System (ESSS) on the basis of performance on the Gates-MacGinitie Reading Test, Level B, Form I, Canadian Edition, and the IQ scores on the Primary Mental Abilities Test. The grade 4 and 6 students were also selected from five schools within the ESSS on the basis of performance on the reading subtests of the Canadian Test of Basic Skills and the verbal scores on the Canadian Lorge-Thorndike Intelligence Test. Reading level and IQ were held constant for the three grades with IQ scores ranging between 105-140 and reading scores at or above the

75th percentile. The age ranges of the students were also comparable with an age range of 11 to 12 months within each grade and an age range of 23 to 25 months between each grade.

A pilot study was conducted in April, 1984 to ascertain the appropriateness of the interview questions, expository passages, and task performances. Six students, two from each of grades 2, 4 and 6 were used in the pilot study.

The research instrument was a set of three expository passages, with one passage being used at each grade level. Before silently reading the passages, the students were queried in regard to their understanding of main idea and the strategies they used to find main idea. The subjects then read the passage, and stated the main idea and the strategies they used to find main idea. This was followed by task performances and an in-depth interview to determine what text information the readers considered important when finding main idea and why this information was important to them. In addition, the researcher used the task performances and in-depth interview to investigate what comprised the contextual frame the reader used to formulate main idea.

The last stage involved an analysis of the students' protocols and task performances. The in-depth interviews were transcribed and the protocols were categorized into three major areas: understanding of main idea, strategies used to find main idea, and readers' reasons for underlining important information and circling key words. The task performances (underlining of important information and circling of key words) were analyzed in relation to the grammatical function of the key words circled, and whether the underlined information was a subject and/or predicate and was a main clause and/or subordinate clause. The findings were then compared across grade levels to investigate the students' concept of main idea.

Major Findings, Discussion and Conclusions

Several major findings were drawn from the analysis of the data collected in this study. The study investigated grade 2, 4 and 6 students' concept of main idea by researching two major areas: (1) students' understanding of the term main idea and (2) how students process text information to find main idea. Findings related to each of these areas are presented below.

Research Question 1

Students' understanding of main idea. The grade 2, 4 and 6 students were queried as to what they were supposed to find if their teacher asked them to find the main idea of a passage. An analysis of their responses revealed that:

1. The concept of main idea was many different things to many different people, and had denotative and connotative components. That is, the concept of main idea differed among individuals, even at the same grade level.

2. All students were familiar with the concept of main idea, but this concept varied in the completeness and correctness of its components.

3. Some grade 2 students relied more on an external source such as the teacher to find main idea. This suggested that the grade 4 and 6 students had developed a more 'complete concept' of main idea.

Research Question 2.1

This question was concerned with how readers process information in order to find main idea.

Strategies the readers verbalized prior to reading the passages. The grade 2, 4 and 6 students were asked how they found the main idea prior to reading the passage. The data revealed that:

1. The entire grade 6 sample was able to verbalize a strategy whereas a similar percentage of both grade 2 and 4 students (20% and 17% respectively) had no awareness of the strategies they used to find main idea. This suggested that the grade 6 students had developed a concept of main idea whereas the grade 2 and 4 students either had not developed a concept of main idea or lacked the metacognitive

awareness of the processes they used to find main idea.

2. The entire sample of grade 6 students had formed an internal organization of the concept of main idea whereas some of the grade 2 and 4 students (40% and 6% respectively) relied on an external source to structure their thoughts on main idea.

3. Of the grade 2, 4 and 6 students who interacted with text information to find main idea, 33% of the grade 2 students' responses and a smaller percentage of grade 4 and 6 students' responses (8% and 17% respectively) relied on graphic features to find the main idea. These readers seemed to be involved in bottom-up processing as they were not using the text information to reconstruct meaning from print. In the hierarchical nature of concept development, these responses were at the lower end of the spectrum, as opposed to associating the main idea with ideas in the text, which is at the higher end of the continuum.

4. Of the readers who interacted with text information to find main idea, a large percentage of grade 4 and 6 students' responses (53% and 64% respectively) and a smaller percentage of grade 2 students' responses (33%) found the main idea through associating it with ideas in the text. Students who relied on these ideas seemed to be forming a concept of main idea, although it was not fully integrated and varied in the completeness and correctness of its components. For instance, "determining the

dominant detail" (Strategy 3) was higher in the hierarchical ladder of concept development than "using the most interesting part" (Strategy 9) according to this researcher.

Strategies the readers verbalized after reading the passages. After reading the passages, the readers were questioned as to how they found the main idea. The data revealed that:

1. A comparison of the number of strategies verbalized before and after reading the passages revealed a decrease in the number of strategies verbalized after reading the passage, with each student in each grade level verbalizing only one strategy. It appeared that when the students were presented with a concrete reading experience such as the expository passage of this study, their strategy used to find main idea became much more focussed on the reading passage and they verbalized only the one strategy they had utilized.

2. Fifty percent of the grade 2 students (N = 6) were unable to verbalize their strategy use and the remaining grade 2 students primarily associated the main idea with characters in the text. The higher grade levels (grades 4 and 6) had more interaction with the text and primarily associated the main idea with ideas in the text. It seems safe to assume that there is an increasingly close relationship between ideas in the text and concept development of main idea from grades 2, to 4, to 6 students.

Research Question 2.2a

Underlining of important information. In order to ascertain what context was used by the reader, the researcher examined the information which the students underlined and found important when finding main idea. The data revealed:

1. The grade 6 students underlined a larger percentage of subordinate clauses than the grade 4 students. This suggested that the grade 6 students may have been higher on the hierarchical nature of concept development of main idea as subordinate clauses reflect unique characteristics of the basic information itself which is usually highlighted in the main clause. That is, the grade 6 students were more able to abstract the critical features that help define main idea.

2. The grade 6 students underlined information which was more central to the main idea as opposed to information which was peripheral.

Research Question 2.2b

Circling of key words. The information which the students circled was analyzed to ascertain what word contexts within subjects and predicates and main or subordinate clauses were relevant to very proficient readers when finding main idea. An analysis of their task performances indicated that:

1. There was a similarity between the contexts which

the grade 4 and 6 students found important. Of particular importance was that the grade 4 and 6 students analyzed the agent of the action more often than the action itself, whereas the reverse was true for the grade 2 students. It may be that the grade 2 students' concept of main idea revolved primarily around the actions of a passage. This would not be surprising considering the relationship between cognitive processes and language. Past research has shown that children up until the age of eight years usually define objects in terms of use (Feifel and Lorge, 1950).

2. Twenty percent of the grade 2 students found function words important when finding main idea. These students seemed less discriminating in their choice of context as compared to the grade 4 and 6 students in that function words have much less meaning than do nouns and verbs (Carroll, 1964).

Research Question 2.21

Readers' reasons for underlining important information. The 36 readers were asked to explain why each piece of information they underlined was important in the process of finding main idea. The findings indicated that:

1. A primary reason for interacting with the text among all three grade levels was because the text information provided descriptive detail. The students appeared to reason that the descriptive information led them to the

topic of the passage which in turn, led them to the main idea. The researcher determined that it would be difficult to determine the main idea unless the topic was understood.

2. A second primary reason for underlining important information was that the information provided a base for making inferences about the qualities and actions of the major characters. Inferring involves the interaction between background knowledge of the student and print information supplied by the author. A too heavy reliance on a reader's personal background suggested that the student was not sufficiently constrained by text information. As approximately 75% of the grade 2 students were inferring with such an undue reliance on their personal background they were not paying sufficient attention to the message that the text was trying to convey (Malicky, 1984). This appeared to be negatively related to finding the main idea as one needs to attend to the text, extract the dominant details and synthesize them into the main idea (Baumann, 1983).

Readers' reasons for circling key words. The 36 readers were asked to explain why the information they circled was important to them when finding main idea. An analysis of their responses revealed that:

1. Five of the 12 grade 2 students (45%) were unable to state how the information they circled helped them to

find main idea. It was uncertain as to whether their "I don't know" response reflected a genuine lack of knowledge, an inability to access the appropriate knowledge, a misunderstanding of the question or no concept of main idea. On the other hand, the entire sample of grade 4 and 6 students were able to verbalize their reasons for circling key words.

2. Eleven of the grade 4 students (91%) and the entire sample of grade 6 students (100%) were active readers in that they went beyond analyzing the text information and interacted with the information in an attempt to find main idea. However, only five of the grade 2 students (41%) interacted with the text information in a manner that was relevant to finding the main idea. Hence, it appears that a larger percentage of grade 4 and 6 students, as compared to grade 2 students, used key words in a manner that was more relevant to finding main idea. That is, they had developed a concept of main idea and used key words to provide a framework or summary of the passage.

Implications

From the findings of this study and the conclusions drawn, the following implications are advanced for the teaching of main idea and how to find it in expository passages for similar populations of children.

1. Being familiar with the label "main idea" or a definition of main idea does not guarantee that the reader has learned the concept of main idea. As was observed in this study, all readers were familiar with the label of main idea, but the in-depth interviews and task performances revealed that their understanding of main idea was often vague and inaccurate. The reader has to go beyond knowing the label or definition of main idea to a conceptualization of main idea.

The teacher can help the students to form a concept of main idea by presenting information about the characteristics of examples of the concept of main idea along with the concept label. Through the teacher's direct instruction, in which he/she tells, shows, models and demonstrates the concept of main idea and how to find it, the student will be able to abstract the critical features that define main idea. Next, the teacher could present several expository passages and the student would be asked to identify the main idea and state why it is an example of main idea. By doing this, the students are provided with the opportunity to practise finding the main idea although the teacher is still present for guidance and feedback. Then, the student should be presented with nonexamples of main idea by having them see an expository passage accompanied by an incorrect main idea statement. Gradually, students would learn to abstract the features of the concept of main idea and to generalize the concept so that they would be able to state their understanding of main idea and apply their understanding in order to find main idea. Daily instruction in Language Arts and content area subjects should include finding the main idea to enable the students to transfer and apply their concept of main idea to everyday reading experiences.

2. The findings suggested that the grade 4 and 6 students had developed a more 'complete' concept of main idea than the grade 2 students. It appeared that the grade 2 students had not mastered the processes of abstraction and generalization needed to form a concept of main idea. Also, grade 2 students are in a stage of cognitive development in which they can only hold two variables in mind when considering classes or categories (Smith, Goodman and Meredith, 1970). Hence, they would have difficulty in abstracting the dominant details, retaining these details and synthesizing them to form the main idea. Finally, the grade 2 students were not constrained by the text as they made many inferences which ignored the author's message. Although reading involves an interaction between reader and text, the grade 2 students need to be more constrained by the text in order to find the main idea which the author is trying to convey. These findings led the researcher to believe that from grade 2 to 4 to 6, there is a progressive development of the concept of main idea. The grade 2

students may not be able to form an adequate concept of main idea, but are ready for an introduction to the concept of main idea.

3. The students in this study were unfamiliar with the nomenclature pertaining to main idea. They were able to describe the strategies they used to find main idea, such as determining the dominant detail, but were unable to apply a label to this strategy. Teachers should provide instruction which will allow the students to learn nomenclature. Teachers need to give explanations of the terms and demonstrate how to use the terms in order to find the main idea.

Suggestions for Further Research

This research study generated several questions which require further research and study.

1. This study used a small sample of students in each of grades 2, 4 and 6 (N = 12), and comparisons about the concept of main idea were made among grade levels. In order to gain information about children's concept of main idea within grade levels, further research could use a larger sample of students within each grade.

2. The research instrument in this study consisted of expository passages in one content area only (animals). Another study could investigate how readers process information in narrative passages and in other content areas of

exposition to find main idea.

3. Only very proficient readers were interviewed. A further study is required to investigate the concept of main idea among less proficient readers. A comparison of the two groups' concepts could then be used to gain information as to how the concept of main idea differed between the two groups. This information could be used to help the less proficient readers develop their concept of main idea.

4. Future researchers should be aware that the task performance of underlining important information provided minimal information and should be eliminated as an analytic tool.

5. Future researchers should also carefully consider the terminology used by the researcher in the in-depth interviews. For instance, in this study, the term "important idea" was equated with "main idea," so that the grade 2 students would not be introduced to an unfamiliar label such as "main idea." However, the term "main idea" is not synonymous with "important idea" as the latter term is subjective in nature. This difficulty with terminology could be overcome by teaching the students certain nomenclature (main idea, dominant details). However, such instruction could alter the findings of the study.

6. Future researchers should be aware of the difficulties of selecting the passages comprising the

research instrument. For instance, the grade 2 passage used in this study may not have been an appropriate expository passage as it was originally written in poetic form.

Concluding Statement

This study has provided some insight into grade 2, 4 and 6 students' concept of main idea and the strategies they use to find main idea. The findings from this study suggested that in the hierarchical ladder of concept development, the grade 6 students have developed a more 'complete' concept of main idea than the grade 4 students. In turn, the grade 4 students' concept of main idea was more developed than that of the grade 2 students. This study was concerned with the development of main idea from grade 2 to 4 to 6 and the processes these students employed to find main idea. It appeared that the concept of main idea meant many different things, even to individuals within the same grade level.

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APPENDICES

APPENDIX A

BACKGROUND INFORMATION ON GRADE 2, 4, AND 6 STUDENTS

Background Information on Second-Grade Students for Description of Students in Main Study

Subject	School	Sex	General Comprehension Score	IQ	C.A. (May, 1984)
1	C	M	3.5	108	8 years, 1 month
2	B	M	5.1	132	8 years, 4 months
3	C	M	4.1	119	8 years, 0 months
4	A	M	5.4	132	7 years, 6 months
5	B	M	6.5	126	7 years, 4 months
6	E	M	4.2	122	7 years, 11 months
7	E	F	4.2	118	7 years, 8 months
8	A	F	5.4	140	7 years, 10 months
9	C	F	4.1	121	8 years, 3 months
10	C	F	3.3	105	7 years, 10 months
11	B	F	6.5	115	7 years, 6 months
12	B	F	3.9	128	7 years, 10 months
Summary		6M 6F	Average 4.6	Average 122	7 years, 10 months

Background Information on Fourth-Grade Students for Description of Students in Main Study

Subject	School	Sex	Percentile Scores	IQ	C.A. (May, 1984)
13	E	M	*C - 90 **V - 95	123	9 years, 8 months
14	A	M	C - 95 V - 95	121	10 years, 2 months
15	D	M	C -100 V - 95	141	9 years, 6 months
16	C	M	C - 95 V - 95	133	9 years, 8 months
17	E	M	C - 90 V - 95	113	10 years, 2 months
18	B	M	C - 75 V - 85	112	9 years, 5 months
19	B	M	C - 95 V - 85	119	9 years, 6 months
20	B	F	C - 95 V - 90	132	9 years, 11 months
21	B	F	C - 90 V - 85	140	9 years, 3 months
22	A	F	C - 90 V - 95	129	10 years, 2 months
23	D	F	C -100 V - 95	126	9 years, 11 months
24	C	F	C - 80 V - 75	111	9 years, 7 months
Summary		7M 5F	Average C - 91 V - 90	Average 125	9 years, 9 months

*C stands for comprehension

**V stands for vocabulary development

Background Information on Sixth-Grade Students for Description of Students in Main Study

Subject	School	Sex	Percentile Scores	IQ	C.A. (May, 1984)
25	A	M	*C - 95 **V - 80	126	11 years, 8 months
26	A	M	C - 85 V - 85	130	11 years, 10 months
27	E	M	C - 90 V - 85	119	11 years, 7 months
28	A	M	C - 95 V - 95	139	11 years, 3 months
29	D	M	C - 85 V - 85	124	11 years, 3 months
30	C	M	C - 95 V - 95	126	12 years, 3 months
31	E	M	C -100 V - 95	128	11 years, 10 months
32	A	M	C - 95 V - 75	124	12 years, 0 months
33	E	M	C - 90 V - 95	134	12 years, 1 month
34	B	F	C - 75 V - 75	110	12 years, 0 months
35	D	F	C - 95 V - 90	113	11 years, 8 months
36	C	F	C - 95 V - 90	114	12 years, 2 months
Summary		9M 3F	Average C - 91 V - 87	Average 123	11 years, 9 months

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*C stands for Comprehension

**V stands for Vocabulary Development

Background Information on Second, Fourth and Sixth Grade Students for Description of Students Used in the Pilot Study

Grade	School	Sex	Percentile Score	IQ	C.A. (May, 1984)
2	D	M	C - 80 V - 80	119	8 years, 0 months
2	D	M	C - 75 V - 75	116	7 years, 10 months
4	D	F	C - 75 V - 80	120	9 years, 9 months
4	D	F	C - 75 V - 75	135	9 years, 5 months
6	D	F	C - 95 V - 85	135	11 years, 5 months
6	D	F	C - 95 V - 85	120	12 years, 2 months
Summary		2M 4F	Average C - 82 v - 80	Average 124	

APPENDIX B

SELECTED PASSAGES FOR GRADES 2, 4 AND 6

GRADE 2 PASSAGE IN POETIC FORM

MANY ANIMALS
   LIVE AT THE ZOO.
THEY RUN AND JUMP AND HOP AND SWIM.
THEY SIT AND STAND,
   AND EAT AND SLEEP.
THEY YELL AND GROWL AND HOWL.
SOMETIMES THEY JUST LOOK AT YOU.
MANY PEOPLE
   WORK AT THE ZOO.
SOME PEOPLE LOOK AFTER
   THE ANIMALS.
THEY CLEAN THE CAGES
   AND FEED THE ANIMALS.
SOME PEOPLE
   HELP THE ZOO ANIMALS KEEP WELL.
SOME PEOPLE SELL TICKETS.
SOME PEOPLE TAKE CALLS.
SOME PEOPLE SHOW OTHER
   PEOPLE AROUND.
SOME PEOPLE SELL HOT DOGS.
SOME PEOPLE KEEP THE ZOO CLEAN.
AND MANY OTHER PEOPLE
   DO MANY OTHER THINGS
   AT THE ZOO.

SOME PEOPLE DO NOT WORK
AT THE ZOO AT ALL.
THEY COME TO THE ZOO
TO SEE THE ANIMALS.
THEY COME TO LOOK AROUND,
AND TO HAVE A GOOD TIME.

GRADE 2 PASSAGE

MANY ANIMALS LIVE AT THE ZOO.
THEY RUN AND JUMP AND HOP AND SWIM.
THEY SIT AND STAND, AND EAT AND SLEEP.
THEY YELL AND GROWL AND HOWL.
SOMETIMES THEY JUST LOOK AT YOU.

MANY PEOPLE WORK AT THE ZOO.
SOME PEOPLE LOOK AFTER THE ANIMALS.
THEY CLEAN THE CAGES AND FEED THE ANIMALS.
SOME PEOPLE HELP THE ZOO ANIMALS KEEP WELL.
SOME PEOPLE SELL TICKETS.
SOME PEOPLE TAKE CALLS.
SOME PEOPLE SHOW OTHER PEOPLE AROUND.
SOME PEOPLE SELL HOT DOGS.
SOME PEOPLE KEEP THE ZOO CLEAN.
AND MANY OTHER PEOPLE DO MANY OTHER THINGS AT THE ZOO.

SOME PEOPLE DO NOT WORK AT THE ZOO AT ALL. THEY COME TO THE ZOO TO SEE THE ANIMALS. THEY COME TO LOOK AROUND, AND TO HAVE A GOOD TIME.

GRADE 4 PASSAGE

A daddy longlegs has eight long, thin legs. Its legs are so long, a daddy longlegs seems to be standing on stilts. When it walks, its body bounces up and down between its legs. It looks as if it were dancing. A daddy longlegs' body droops way below its knees.

A daddy longlegs can travel very fast. It doesn't have to crawl on the ground. It can skim along on top of the grass.

A daddy longlegs has four pairs of legs. The first pair is nearest the head. The second pair is much longer than any of the others. A daddy longlegs keeps waving its second pair of legs all about. It touches everything it can reach. It uses these legs to touch, hear, taste, and smell.

Daddy longlegs spend much of their time cleaning or "preening" their long legs, especially their second legs. They clean a leg by pulling it slowly through their jaws. Then they wash their jaws in water. Only clean legs can do a good job of touching, tasting, smelling, and hearing.

On the second pair of legs, at each joint, there are also rows of very fine hairs. These hairs are the daddy longlegs' "ears." This hearing can be tested by making a loud noise near a daddy longlegs. Its second pair of legs will jerk right away.

Each of the eight legs ends in a small claw. The daddy longlegs uses these claws to grab hold of blades of grass. They keep the daddy longlegs from slipping as it runs along the top of the grass.

The small body of a daddy longlegs is round or oval. It has no neck and no waist. On each side of its body, the daddy longlegs has breathing holes. Some daddy longlegs have extra breathing holes in their legs.

A dot on the top of the body is really a tiny lookout tower. There is an eye on each side of the dot. The eyes stare sideways without blinking.

Behind the front legs there are two odor glands. They look like two extra eyes. To protect itself, a daddy longlegs can give off a smelly liquid from these glands. Birds, toads, and large insects don't like it at all. It makes them feel too sick or too weak to try to catch the daddy longlegs.

The dull coloring of the daddy longlegs is another way it is protected from its enemies. Daddy longlegs are awfully hard to see as they wobble along in the grass.

Daddy longlegs are related to spiders, but they are not true spiders. Daddy longlegs don't spin webs to trap insects for food the way spiders do. Daddy longlegs go out hunting for their food. Daddy longlegs never bite people, and they are never poisonous.

GRADE 6 PASSAGE

Dolphins look like fish, and they live where fish live. But they are not fish. They are mammals.

That's why a dolphin comes to the top of the water so often--to breathe air. Fish can breathe in water, but mammals can't. A dolphin breathes air through a tiny hole on top of its head called a blowhole.

Usually a dolphin rises out of the water every half minute or so to open its blowhole and take a gulp of air. But if it has to, a dolphin can hold its breath for six or seven minutes.

A dolphin's ears are two pinholes on the sides of its head. With them, a dolphin can hear all sorts of faint noises in the water--pebbles rolling, sea grasses rustling, and the sounds made by fish and other dolphins.

A dolphin has almost one hundred teeth in its large mouth. These teeth are all the same shape and size. Dolphin teeth are used for catching food, but not for chewing it. A dolphin grabs a fish firmly between the two rows of teeth and swallows it whole.

Dolphins can live out of water for some time if they have to, since they breathe air. But a dolphin must not dry out or it will become overheated. And dolphins do sunburn very easily. So a dolphin out of water must be kept wet at all times.

Most dolphins are very friendly animals. They usually live in a group called a school. Dolphins eat and sleep together in the school. And they help each other in all sorts of ways.

Dolphins have enemies in the sea such as the killer whale and the shark. If a killer whale or a shark comes close, the dolphins make a circle with mothers and babies in the middle. The bigger male dolphins swim around the outside. Usually a shark or a killer whale won't try to attack dolphins in such a group. But if one does, the dolphins fight back together.

Sometimes a dolphin is hurt or sick and needs help. A sick dolphin has a special problem. When people are sick, they can sleep for as long as they want. But if a dolphin sleeps for more than six or seven minutes without coming up for air, it will drown. That is why

another dolphin will become the
sick dolphin's nurse and swim with
it. If the sick dolphin falls too deeply
asleep, the nurse will nudge it up
for a quick breath of air.

Main Idea Statements According to the Researcher

Grade 2 Passage

Animals and people do many different things at the zoo.

Grade 4 Passage

The appearance of the daddy longlegs, along with how it moves and protects itself.

Grade 6 Passage

The appearance of the dolphin, along with how it lives and survives.

APPENDIX C

SAMPLE PROTOCOLS

Grade 2, Student #6

R If your teacher asks you to find the most important idea or the main idea in a story, what are you supposed to find?

S Well, you're supposed to find the part you're supposed to find what like the main idea is the part that tells the most it exciting and it tells you what the story's about.

R Ok, was there anything else?

S Hm, it um the hm the the part of the story that is uh um it tells you what to do like tells you what it is like what the story is uh I dunno.

R Ok, good and can you tell me what you do to find the most important idea or the main idea?

S Um, you read the story and the you read the story and find out and you can check and see.

R How can you check?

S You'd find the part that tells what the story's about and it you can look at the the title and then you can go then it'll give you a better idea of what.

R Oh, so the title can give you a bit of a hint.

S Ya.

R Ok, pretend that I'm a new grade 2 student and that I don't know how to find the main idea or the most important idea. Can you explain to me how I'd find it?

S You could um you could look at the title and um if it whatever it's um the title is you find what part of the story is tells most about the title.

R Ok, what do I do if there's no title?

S You um it would be a bit harder but you'd have to um sort of find a part that does tell you about it um.

R About what?

S About the thing like you can read a book story and you can find out by if there's no title you can find out by reading along and find out what you think's the most.

INSTRUCTED TO READ

R Ok, so what was the main idea or the most important idea?

S The most important idea was um well pretty well the middle because when it tells the it tells you about who goes there and a bit at the end a bit at the top so pretty well most of the story tells is the main idea.

R And what is the main idea?

S It's the main idea is it's part of the story that tells me what it is about.

R And what was it about?

S It was about mainly animals that live at the zoo and all the like tells the the what animals and what they do and um and um people who keep who takes care of them and all that.

R Ok, can you put your answer into a sentence for me, about what the main idea was in the story. What you just told me.

S Who takes care the people who take care of the zoo.

R Ok, now I want you to tell me everything you can remember about how you found your answer.

S I um I I um looked at the I read it and then I decided I thought in my mind I thought what tells more about the story and then I found what.

R And which told more about the story?

S Mostly the middle because it tells many people work at the zoo and some people look after the animals and all that and it tells about the story.

R Ok, and what were you thinking as you were trying to find the main idea or the most important idea?

S Well, I was thinking about um to find the thing I'd have to the most important idea I'd have to I was thinking that which part and then like usually I thought I was thinking usually it would be the middle and then I read and it was.

R Ok, good.

INSTRUCTED TO UNDERLINE

R "Many animals live at the zoo." Why was that important?

S It tells you that what lives at the zoo it tells how many live at the zoo.

R Ok, and "they run and jump and hop and swim. They sit and stand, and eat and sleep. They yell and growl and howl." Why was that important?

S Hm, it tells what the animals do and you get a better idea what what animals are like.

R Ok, "many people work at the zoo."

S Hm, that's good because it tells you what people work at the zoo and how many.

R Uh huh, "some people look after the animals."

S That is they because you know people look at the look after the animals and they're not just wild on their own.

R Right, and was this related or the same as anything else you underlined?

S Hm, um yes "some people look after the"

R Which one?

S This one here.

R How come these are, how come . . .

S Because some people help the zoo animals keep well, some people keep some people look after the animals, well it's pretty well the same thing, they look and help keep well.

R "They clean the cages and feed the animals."

S That's good cause you know that they live in cages and um the animals don't have to get their own food and they get their own.

R Ok, "some people help the zoo animals keep well." Why was that important?

S Because it it was the same it is the same thing as this cause help and it also had a bit of additions in it like they help keep them from getting sick.

R Right, "some people show other people around."

S Um, that's good because then you don't you know that you get shown around instead of um just you have to look around by yourself and because some people might not know what a zoo's like or anything you might . . .

R You'd get lost or something.

S Yup.

R Ok, and um "some people keep the zoo clean."

S Um, that's um that's pretty well the same as this, but not really because it clean and keep care of the animals is not really they keep the zoo clean it's important so you know that it's not dirty and everything all over the place, popcorn is spilt and stuff.

R Which one do I put it to?

S This, it's a bit like it.

R Ok, and how come this information is not important? "Some people sell tickets. Some people take calls."

S Um, because well it's not very important because you because like well you you you could if you go to the zoo you could find out that easier than the other stuff.

R Oh, I see and how did you use all this information to help you find the main idea?

S Um, I used it in a word, like I used it so I could find out how the main idea, like what the main idea was I used it to find out like the it was cause they they tell you mostly tell you mostly about things they um I knew that would be the main idea, the parts that tell more about the zoo than the others.

R Tell what about the zoo?

S Tell more about the zoo and everything.

R Ok, so it's whatever you tell the most about.

INSTRUCTED TO CIRCLE KEY WORDS

R "Many animals live at the zoo." Why were these key words?

S They told me that many animals live at the zoo and told me that animals live at the zoo and um that the that there's lots, like many of them.

R Ok, and this one, "may people work at the zoo."

S It tells me that um people work at the zoo and it tells me if what the animals aren't wild or anything loose and they're it tells me that they're in cages and it tells me that um people many people work at the zoo, lots of people work at it.

R Um hmm, and are the key words usually at the beginning of the paragraphs?

S Hum, usually but not all the time.

R Ok, and how did you use these key words to help you figure out what the main idea was?

S Hm, I used them to find the thing because they sort of told me what the main idea was because many animals live at the zoo that's sort of like a title but it's not and um the other one "many people work at the zoo" that told me I used them because they told me that that the main idea was because many people work at the zoo.

R Ok, was this one like a title too?

S Hm, not not no.

R Ok, not as much, ok and the last question again is how did you find the main idea when you were reading this story?

s Um, I found it I looked at the first of it, I read it and then I found it because uh this was this told me a bit about it and I knew because there was some key there I looked at two key words and then some other words that tell me about animals and stuff and what the people do and then I knew what the main idea was.

R Good, was there anything else you did?

S Um, not not. No.

Grade 4, Student #21

R The first question is, if your teacher asks you to find the most important idea or the main idea in a story, what is she asking you to find?

S To find what the whole story's about.

R Ok, anything else?

S Um, she wants you to find um what they're talking about, like what they're saying to you.

R What the characters in the story are saying to you?

S Ya.

R Or what the author's . . .

S Like, I mean what the author's trying to show you in the story.

R Ok, and can you tell me what you do to find the most important idea or the main idea?

S Um, let's see, you read. I can't remember.

R Ok, your teacher's asked you to find the main idea, so you'd read the story.

S Hm hmmm.

R And then what?

S And then um you would um I don't really know what you do.

R Ok. We'll read a story after and maybe it will come back to you. Ok, pretend that I'm a new grade 4 student and that I don't know how to find the main idea or the most important idea. Can you explain to me how I'd find the most important idea?

S Ok, um, first you have to take the story and you read it through, and then you have to do . . .

R And then what would I do?

S And then you'd, hmmm, somehow I can't remember that, I don't know why.

R Ok, maybe that will come to you after.

INSTRUCTED TO READ

R So, what was the main idea or the most important idea?

S It was about how daddy longlegs sort of looks and how it like what it has on its legs and how it uses its legs and um how it's in ways not related to the spider and how it's related to the spider.

R Ok.

S That's about it.

R Anything else?

S And how it sort of releases the yukky liquid to the birds and stuff so that they feel weak and they don't want to and like they feel sick and they can't catch the daddy longlegs.

R Hm hmmm, ok, can you put all that into a sentence?

S Um, let's see. I was saying that the daddy longlegs are like spiders in some ways and in some ways they're not really, well, that doesn't really tell everything about it.

R You mean everything that you said before.

S They have ways like spiders do to protect themselves and they have ways of not being caught and the daddy longleg spiders are not really spiders, they're just like sort of like cousins to the spiders. And that's about all you can really put in one sentence so it's not run-on. 2

R Ok, this time um oh ho first you have to answer this. I want you to tell me everything you can remember about how you found your answer that you just said.

S Um, I read through the story and I got more or less seven words from each paragraph and put them together to make one sentence and I took out a couple of words so the sentence wouldn't be too long.

R How did you pick the words from each paragraph?

S Um well, it's sort of starts out that it's not really important and then towards the end it gets um to what it's really trying to say, so you pick more or less the words that end in each paragraph.

R Oh, so the ending of each paragraph is like a summary.

S Ya, um.

R Or something or concluding sentence or something.

S Ya.

R Ok, is there anything else that you did?

s Um, well I don't think so.

INSTRUCTED TO UNDERLINE

R "When it walks, its body bounces up and down between its legs."

S Well, most people think that a spider walks, but a daddy longlegs is sort of well it goes xxx almost like that. [Used hands to show movement.]

R Ok, so it moves differently. "A daddy longlegs body droops way below its knees."

S Well, that's um like I guess for the same reason so that other people don't think that all spiders walk like that that some sort of move like that. [Used hands to show drooping body.]

R Body moves like that.

S Ya.

R So, is this related to this one?

S Ya, sort of.

R How come you didn't find this important?

S Well, it doesn't like most people don't already think that um people like they don't think how spiders move slow or fast cause like just about everyone knows that they move quite fast, so it's not too important to know that.

R Ok, "A daddy longlegs has four pairs of legs. The first pair is nearest the head. The second pair is much longer than any of the others."

S Well, um also um most people think they the legs they just go around the body, xxx and that's not really.

true cause some are longer than the others so I guess they can help them and also, then the others are shorter and I think lots of people think that they're the same length and that they just like go around the body xxx.

R Ok, so this sort of corrects what people might be thinking, that's wrong.

S Ya.

R "It uses these legs to touch, hear, taste, and smell."

S Well, no spider does that, no spider that I know of so it's important to know that they do that xxx.

R Ok, "They clean a leg by pulling it slowly through their jaws."

S Well, that's interesting cause most you don't really read a story to say that the spider cleans its legs, his legs by pulling it through the jaws so it sort of tells the people how the spider cleans itself.

R Ok, so it gives more information. "Only clean legs can do a good job of touching, tasting, smelling, and hearing."

S Well that's uh that's to correct people's thinking cause they probably they don't really pay attention to spiders' cleaning their legs and like if they didn't, they probably wouldn't hear half as well xxx.

R Ok, was this related to other information that you underlined? In any way?

S Um, sort of um here, like they clean the legs.

R To which one, this one?

S Ya and this one.

R How's it related?

S Well, like it's it shows how it can do these things better.

R Ok, by cleaning the legs?

S Ya.

R Ok, "These hairs are the daddy longlegs' ears. This hearing can be tested by making a loud noise near a daddy longlegs. Its second pair of legs will jerk right away."

S Well, it's interesting how like it um that their hairs sort of listen for them and um then the second pair of legs will jerk really fast and how it would probably start running or something xxx.

R Ok, "each of the eight legs ends in a small claw."

S Well, you don't really pay attention to that, the end of the claw you just think it's like our feet and you don't grab it or something like they're just the same, more or less flat and um not very many people attention to them.

R Ok, "they keep the daddy longlegs from slipping as it runs along the top of the grass."

S Well, also people don't think like they don't really imagine that they um xxx without those claws they would be hurrying along and they'd slip so um it's kind of interesting also to know that they'd the claws help them run.

R Ok.

S People and enemies.

R Well, how come this wasn't important? "The small body of the daddy longlegs is round or oval."

S Well, most people think that the spider, that they're um like that if their shape is round or oval but it's not really that important to know that um what a spider looks like.

R Ok, "It has no neck and no waist. On each side of its body, the daddy longlegs has breathing holes."

S Well, you would think that it would breathe through another part of their body, like through the mouth or through their nose or something like through their smelling thing and um you wouldn't think the spider has little breathing holes that it would breathe out of.

R Um hmm.

S It's just like that you don't really think that a fish breathes out of his gills like you don't really imagine them opening their gills and taking a breath of air.

R That's true, ok, "A dot on the top of the body is really a tiny lookout tower. There is an eye on each side of the dot."

S Well, you'd think a spider has two eyes and like they would use them but um they don't really, they have a lookout tower and that's interesting to know, that they don't have eyes, if they do they don't use them anyways.

R Ok, so this was something new to you.

S Ya.

R Um, "to protect itself, a daddy longlegs can give off a smelly liquid from these glands."

S Well, um that's important because it shows how it can get rid of its enemies and you don't think a spider giving off this liquid and the birds or whatever stopping and not catching him. You usually think of them as running away and hiding someplace.

R Ok, and was that related to any other information you underlined?

S Um, no, I don't think so.

R Ok, and "it makes them feel too sick or too weak to try to catch the daddy longlegs."

S Well, you would be wondering why they give off this gas and like what it would do to them xxx this explains what it would do to them.

R So, it it's telling you what you were thinking, wanting to know. Ok, um why isn't this important?

S Well, um it's not too important to know the color of the daddy longlegs cause most people can see spiders and they know it's brown and it's like well not colored and um it like you don't really see a daddy longlegs on the sidewalk or something and they go into the grass, you don't see it, so you already know that they're camoflauged in the grass and that's not too important.

R Ok, and this last paragraph, "Daddy longlegs are related to spiders, but they are not true spiders."

S Well, um most people think that daddy longlegs are like real spider but they're just like cousins to the spiders so it's to say clear the people's thinking.

R Ok, "Daddy longlegs go out hunting for their food. Daddy longlegs never bite people, and they are never poisonous."

S Well, people think that all spiders are dangerous like get them away from me they'll hurt me but um although if you would know this you'd still be sort of scared of them. I'm not though, I have fun with them.

R Ok.

S And um you would expect the daddy longlegs to spin webs if they're related to the spiders. That's not true so um they go hunting.

R Ok, good, now how did all this information help you to find the main idea, the information you underlined?

S Um, well you could say that that you go through reading just through all the stuff you had underlined and you come to some kind of conclusion that um spiders are really related to daddy longlegs are related to spiders by reading all this stuff about them and thinking that um other spiders are tarantulas and that doesn't really do these things and like if you're talking about a tarantula it this wouldn't be true at all so um that's the conclusion you'd probably come to if you read all the information I underlined.

R You'd put it together and come to that conclusion.

S Ya.

INSTRUCTED TO CIRCLE KEY WORDS

R Ok, you circled "droops." Why was that a key word?

S Well, um that's about the only spider that sort of hangs their body um like below their knees, like that's pretty far you would think. Spiders, like other spiders they don't really droop that far down. So, they're different in that way.

R Ok, "related."

S I just wanted to point out the word "related" to spiders, like they aren't actual spiders, they're just cousins sort of.

R Right. "smelly liquid."

S Well, most spiders, not any I can think of give off a smelly liquid, most of them stand and bite their prey or whatever and they don't give a liquid like that.

R Ok, "not true spiders."

S That's sort of related to that one. [Pointed to word related.] Cause it's not a true spider, it's really a cousin.

R Right, ok, "don't spin webs."

S Well, all spiders spin webs to catch their food that I can think of except the daddy longlegs so um that's the way the daddy longlegs xxx to catch their food.

R Um hmmm, "hunting for their food."

S That's related to spin webs that they go hunting for their food.

R Ok, "never bite."

S Well, all spiders like that bite and I can't think of any that don't bite, that's how they scare away their enemies.

R Ok, and "never poisonous."

S And um well lots of spiders will sort of take a bite of you or something they they use poisonous liquid or something into you that would make you pretty sick.

R Ok, so the spider's different in these ways.

S Ya.

R Ok, good, and how did these key words help you to find the main idea?

S Well, if you would put them all together you'd come to the conclusion that the ways of the daddy longlegs are different than spider.

R Ok, and the last question is, I've already asked you it again but can you think of anything else about what you did when you were trying to find the main idea when you were reading?

S Um I well I was trying to get the words that I thought was important to paragraph and I would remember those words or whatever, write them down and if I got all the words that I thought was important I'd come to a conclusion about the story and how like what the author's trying to tell you.

R Good.

Grade 6, Student #28

R The first question is if your teacher asks you to find the main idea or the most important idea in a story, what are you supposed to find?

S You're supposed to find like the main topic or something like that, like what's it saying about the in the story like the main part of the story sort of um the main idea sort of ah, it's hard to explain.

R Ok, um well, what do you think the main idea is?

S Well, sometimes maybe for example, it might be it may be a this maybe it maybe it's a science fiction story maybe um for example, a planet might be in trouble and then somebody comes and saves it or something like that or there's a hero and he saves the this damsel in distress.

R Ok and um is there anything else that that you're supposed to find?

S Well, like there could be a moral to the story like uh teaching you something about it.

R Ok. Can you tell me what you do to find the most important idea or the main idea of the story?

S Well, you can read through it and um you just have to well actually you just read through it and um you just um try to get the main idea of it somehow. I dunno, you just read it.

R Ok. I'll ask you in this way. Pretend that I'm a new grade 6 student.

S Ya.

R And that I don't know how to find the most important idea or the main idea of the story. Explain to me how I would go about finding it.

S Well, it usually just comes to you maybe like um like you read through the story and it sort of comes to you.

R How does it come to you?

S Well, um it depends what kind of story it is and sometimes maybe it's complicated or something and then you can't really find what's going on and maybe it's really simple story like um maybe a person comes along and then you have a party, but then this other guy comes along and he sees he hasn't been invited and you have an argument or something like that or maybe it's a story about divorce or something and this family splits up well then and you can also tell from the title like you know what it's about.

R Oh, so the title gives you a hint.

S Ya.

R Ok.

INSTRUCTED TO READ STORY

R What was the main idea?

S The main idea was like it was talking about dolphins and what can hurt them and what they are and what they do and how like um maybe if what one of thems sick or something and how the other ones help them.

R What do you mean by what they are?

S Like they're reptiles or mammals or

R And what was the dolphin?

S It was a mammal.

R Ok. Was there anything else?

S Well, it also says that if um killer whales can attack them when they're along but if it attacks a group well then the group will help fight back sort of.

R Ok, can you put all of what you said into a sentence?

S Um, the main idea would be the habits of the dolphins.

R Ok, now I want you to tell me everything you can remember about how you found your answer.

S Well, you can find it by reading this like "dolphin" it's telling about dolphins so it usually wouldn't be talking about killer whales if it would keep on saying dolphins and all that.

R Hm hmmm. So the word was repeated throughout. Was there anything else about how you found your answer?

S Well . . .

R Cause you said it was more than about dolphins.

S Ya. I dunno. It's just um ah I dunno. It's just like that. It's hard to explain.

R How did you know—Ok, you said what they are, they're mammals, dolphins are mammals and then you said what they do and

S Ya.

R And all this stuff. How did you know that - that was that was part of your answer?

S Well, that's because that's what it's always um talking about that and all that.

R Ok, so again, it's repeated.

INSTRUCTED TO UNDERLINE

R "Dolphins look like fish, and they live where fish live. But they are not fish. They are mammals." Why was that important?

S That's important is it tells that that they are mammals because like someone might think they are reptiles and reptiles are different and their habits are different.

R Ok.

S So it makes them so it puts them in a separate group, sort of.

R "Fish can breathe in water, but mammals can't."

S Well, it that tells how they're different.

R Ok, one of the things that they do to make them different. "But if it has to, a dolphin can hold its breath for six or seven minutes."

S Ah, that's because like um it tells that they can hold its breath under water to like if it has to like sort of if it has to.

R Does this piece of information relate in any way to other information that you found important?

S Well, I think I forgot to underline this. [He underlined "Usually a dolphin rises out of the water every half minute or so to open its blowhole and take a gulp of air.")

R Ok, why did you underline this part?

S Well, this really it tells one of its habits to um say that it um also um has to come up for air because fish can just they can stay down as long as they want to but dolphins are a bit different from fish you know sort of.

R Ok. And but "if it has to a dolphin can hold its breath for six or seven minutes." Is that related in any way to other information you found important?

S Well, it sort of like maybe ah sort of its enemies come along and he can dive under and go deep.

R Ok. "A dolphin's ears are two pinholes on the sides of its heads head."

S And it well it that tells that where its ears are and um if it does have ears cause I don't think fish have ears.

R Ok, so it gives you more information. "Dolphin teeth are used for catching food, but not for chewing it. A dolphin grabs a fish firmly between the two rows of teeth and swallows it whole."

S That's another one of its habits.

R Ok.

S What it does.

R Is this related in any way to other information you found important?

S Well, it can also be like so they aren't the same as sharks because sharks they tear it apart and all that.

R Ok, and why didn't you find any of this important? [I pointed to "With them, a dolphin can hear all sorts of faint noises in the water—pebbles rolling, sea grasses rustling, and the sounds made by fish and other dolphins."]

S Well, actually, that's um sort of extra a bit you know.

R Extra stuff that you don't really need? "Dolphins can live out of water for some time if they have to." Why was that important?

S That's important because um that's um one of their um um not exactly their habit but in an emergency or something they maybe or if they're stranded it tells that um they can only live for a little while out of the water.

R Ok. "But a dolphin must not dry out or it will become overheated." Why was that important?

S That's one of its dangers, sort of.

R Ok. "They usually live in a group called a school Dolphins eat and sleep together in the school. And they help each other in all sorts of ways."

S And that's sort of their social social structure sort of and habits.

R Ok. "If a killer whale or a shark comes close, the dolphins make a circle with mothers and babies in the middle. The bigger male dolphins swim around the outside. Usually a shark or a killer whale won't try to attack dolphins in such a group. But if one does, the dolphins fight back together."

S That's sort of how they defend themselves from predators.

R Ok. "A sick dolphin has a special problem."

S That says um like sometimes it's like different from if we get sick or any other animals get sick. So, it's different.

R Ok. So it's different in some ways. "But if a dolphin sleeps for more than six or seven minutes without coming up for air, it will drown. That is why other dolphin will become the sick dolphin's nurse and swim with it." Why is that important?

S That's important. It tells like how they help each other and it's one of their habits too.

R Ok. That piece of information that that I just read, was that related to other information that you underlined?

S It's also one of their social structures, I think, it's connected.

R Which was - which part was talking about its social structures?

S The the school.

R This one?

S Ya.

R Ok. And the last one. "If the sick dolphin falls too deeply asleep, the nurse will nudge it up for a quick breath of air."

S That tells what will happen and like um what the the nurse will do to help.

R Ok, and how did all of these pieces of information help you to find the main idea?

S Well, that's because they are sort of the main idea, that's the core of it maybe you could call it.

R Ok. Because with each one you sort of said this was habits, this was social structure.

S Ya.

R And do you do that when you're reading, do you sort of read a thing and sort of put a label on it like that?

S Ya sometimes. Sometimes I just read it for the story.

R Ya. But if you're asked to find the main idea.

S Ya.

R You do something like that.

INSTRUCTED TO CIRCLE KEY WORDS

R Ok. "look" Why was that a key word?

S They look like fish, but they aren't.

R Ok. "not fish"

S Well that's what it means. Not fish.

R The same.

S Ya.

R "Mammals"

S Ya. That's their species.

R Ok. "usually"

S Um, not all the time, sort of.

R Why was "every half minute" . . .

S It's just it's because maybe anyone who was reading might think that they can stay down for a really long time.

R Ok, and they can't.

S Ya.

R "if it has to"

S That's for emergency or something you know.

R When it can stay down for a longer time. "ears are two pinholes on the sides of its head."

S Ya, ya, that's where it is.

R Ok, "teeth are used for catching food."

S Ya, that just tells what it's used for.

R Ok, "swallows it whole."

S And it tells it swallows it whole.

R "live out of water" Why were those key words?

S Ya, it means they can live out of water.

R Ok, "must not dry out."

S Ya, but they must not dry out or else they're going to die.

R Ok, "in a group."

S They live that's because they live in a group most of the time.

R Ok, "help each other."

S And that's how I mean that's if the sh say that if one's in trouble they would help each other.

R Ok, "dolphins fight back together."

S And that's to sort of these two are connected sort of [pointed to "they help each other"].

R Ok, they help each other. "more than six or seven minutes" Why was that a key word?

S Well, that is they they'll drown if they stay down too long.

R It will drown, so that's connected.

S Ya.

R "nurse"

S This is they assign another dolphin to help the other one, you know.

R "nudge it up"

S "for a quick breath" That would to uh that's how it helps.

R Now all of these - I asked you to circle the key words and all of these were key words to you.

S Ya.

R Ok, and do you like this one one you just circled one word, "nurse," and sometimes you circled several. When you usually do this, what do you do? Is it usually one word or is it sort of a group of words?

S Sometimes it depends like if you really need uh all of them.

R Oh so sometimes if you circle a few it helps you to explain it a bit more.

S Ya, a bit more.

R And how did these key words help you to find the main idea?

S Um, they it's really those are the like if you really cut it down I mean shrank it down it would that would be it sort of.

R Ok, you said the things you underlined were the core of the story, were these key words bigger than the core or smaller than the core?

S Smaller.

R Oh, Ok, and before you go, one more thing. How did you, I mean again I'm going to ask you, how did you find the main idea when you were reading the story?

S Well, if you take the core well then you can find out what it is and also the other details like the extra stuff it also helps you a bit too, just because it um it also is extra details.

R Now, these extra details is that do you mean stuff like this here?

S Ya.

R And do you consider that part of the main idea or not?

S Well, it helps describe it sort of.

R Ok, it helps to get . . .

S It's a helper sort of.

R Ok, good. Is there anything else you do to get the main idea?

S Well, you can see like what's repeated and sort of like that.